

TABLES

TABLE 1 – SITE INVESTIGATION COMMUNICATION SUMMARY

Investigation	Communication Method	Date	Description
Intracoastal Waterway - Sediment	Letter	09-18-06	Gulfco Restoration Group (GRG) ¹ provided Phase 1 Site and background data and proposed collection of three additional samples.
	Letter	11-14-06	EPA approved (with modifications) GRG's 9-18-06 letter.
	Letter	01-12-07	GRG provided unvalidated laboratory report for one sample and explained that other two samples were not collected due to insufficient sediment thicknesses per 11-14-06 EPA letter.
	Letter	03-13-07	GRG provided validated data for final Intracoastal Waterway sample.
Intracoastal Waterway - Surface Water	Letter	09-18-06	GRG provided Site and background data. No additional sampling proposed.
Intracoastal Waterway - Fish Tissue	Letter	09-18-06	GRG provided Phase 1 Site and background sediment data and proposed that no fish tissue collection be performed based on those data.
	Letter	11-14-06	EPA responded to 9-18-06 letter – required collection of fish tissue samples and specified sample analyte list.
	Letter	11-20-06	GRG provided replacement pages to RI/FS Field Sampling Plan and Quality Assurance Project Plan to describe details of fish tissue sampling program in accordance with 11-14-06 EPA letter.
	Letter	01-12-07	GRG documented EPA approval (on 12-14-06) for collection of a reduced number (six) of red drum samples.
	Letter	03-20-07	GRG provided fish tissue analytical data and fish ingestion pathway human health baseline risk assessment.
	Letter	06-29-07	EPA approved (with modifications) fish ingestion pathway human health baseline risk assessment provided in GRG's 3-20-07 letter and requested resubmittal of revised letter.
	Letter	07-18-07	GRG provided revised version of fish ingestion pathway human health baseline risk assessment incorporating modifications from EPA 6-29-07 letter.
South Area Soils	Letter	09-11-07	GRG provided Phase 1 data and proposed Phase 2 investigation. Letter concluded that eastern extent of contamination had been identified.
	Letter	10-30-07	EPA approved (with modifications) Phase 2 investigation proposed in GRG's 9-11-07 letter and requested resubmittal of revised letter.

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South Area Soils (continued)	Letter	11-28-07	GRG resubmitted revised version of Phase 1 data and proposed Phase 2 investigation letter incorporating modifications from EPA 10-30-07 letter.
	e-mail	12-13-07	GRG provided Phase 2 data and concluded that western extent of contamination had been identified.
Residential Surface Soil Investigation	Letter	08-20-07	GRG proposed analyte (lead) for off-site (Lot 19/20) samples based on data for Lots 21, 22, and 23 surface soil samples.
	Letter	09-06-07	EPA approved (with modification) Lot 19/20 analyte (lead) proposed in GRG's 8-20-07 letter and requested resubmittal of revised letter.
	Letter	09-21-07	GRG resubmitted revised version of proposed Lot 19/20 sample analyte letter incorporating modification from EPA 9-6-07 letter.
	e-mail	10-10-07	GRG provided unvalidated data for Lot 19/20 samples with preliminary conclusion (subject to validation) that no additional residential soil sampling was needed.
	e-mail	10-15-07	GRG provided validated data for Lot 19/20 samples with note that no data were qualified during validation process.
North Area Soils	Letter	09-11-07	GRG provided Phase 1 data and proposed Phase 2 investigation. Letter concluded that lateral extent of contamination had been determined, but proposed one additional sample to assess vertical extent of contamination and six additional borings to evaluate potential source areas.
	Letter	10-30-07	EPA approved (with modifications) Phase 2 investigation proposed in GRG's 9-11-07 letter and requested resubmittal of revised letter.
	Letter	11-28-07	GRG resubmitted Phase 1 data and proposed Phase 2 investigation letter incorporating modifications from EPA 10-30-07 letter.
	Letter	04-08-08	GRG provided validated Phase 2 data.
Wetlands – Sediment	Letter	11-28-06	GRG provided figure with proposed Phase 2 wetland sediment/surface water sample locations.
	e-mail	12-01-06	GRG provided revised figure with proposed Phase 2 wetland sediment/surface water locations (included one additional sediment sample location requested by EPA).
	e-mail	12-01-06	EPA approved proposed Phase 2 wetland sediment/surface water locations in GRG's 12-01-06 e-mail.
	Letter	11-01-07	GRG provided Phase 1 and 2 wetland sediment data and proposed Phase 3 investigation.
	Letter	12-13-07	EPA approved Phase 3 wetland sediment investigation proposed in GRG's 11-01-7 letter.
	Letter	2-12-08	GRG provided Phase 3 wetland sediment data and proposed Phase 4 investigation.

TABLE 1 – SITE INVESTIGATION COMMUNICATION SUMMARY

Wetlands – Sediment (continued)	Letter	3-18-08	EPA approved (with modifications) Phase 4 wetland sediment investigation proposed in GRG’s 2-12-08 letter and requested resubmittal of revised letter.
	Letter	04-14-08	GRG resubmitted Phase 3 wetland sediment data and proposed Phase 4 investigation incorporating modifications from EPA 3-18-08 letter.
	Letter	09-08-08	GRG provided validated Phase 4 data.
Wetlands – Surface Water	Letter	11-28-06	GRG provided figure with proposed Phase 2 wetland sediment/surface water sample locations.
	e-mail	12-01-06	GRG provided revised figure with proposed Phase 2 wetland sediment/surface water sample locations.
	e-mail	12-01-06	EPA approved proposed Phase 2 wetland sediment/surface water locations in GRG’s 12-01-06 e-mail.
	e-mail	05-10-07	GRG provided Phase 1 and Phase 2 wetland surface water data with conclusion that no additional wetland surface water sampling was needed.
Ponds - Sediment	Letter	11-13-06	GRG provided validated data for pond sediment samples.
Ponds – Surface Water	Letter	11-13-06	GRG provided validated data for pond surface water samples.
Groundwater	Letter	01-19-07	GRG provided Phase 1 data and proposed Phase 2 investigation (including five additional Zone A monitoring wells and five Zone B monitoring wells).
	Letter	03-01-07	EPA approved (with modifications) proposed Phase 2 investigation in GRG’s 1-19-07 letter. Modifications included addition of two more Zone A wells.
	Letter	06-13-07	GRG documented EPA concurrence (on 5-30-07) that proposed Zone B monitoring wells NCMW23B and OMW26B not be installed because soil borings indicated that Zone B was not present at these locations.
	Letter	10-12-07	GRG provided Phase 2 data and proposed Phase 3 investigation (including one additional Zone B monitoring well).
	Letter	11-08-07	EPA approved (with modifications) proposed Phase 3 investigation in GRG’s 10-12-07 letter and requested resubmittal of revised letter.
	Letter	11-30-07	GRG resubmitted Phase 2 data and proposed Phase 3 investigations incorporating modifications from EPA 11-08-07 letter.
	Letter	01-15-08	GRG provided Phase 3 data and proposed Phase 4 investigation (including one additional Zone B monitoring well, two Zone C piezometers, and one Zone C monitoring well).

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Groundwater (continued)	Telephone Conversation	01-28-08	EPA requested that proposed Phase 4 investigations be modified to include use of Membrane Interface Probe during Cone Penetrometer (CPT) advancement and installation of four Zone C piezometers instead of two Zone C piezometers.
	Letter	02-11-08	GRG provided Phase 3 data and revised proposal for Phase 4 investigation (including one additional Zone B monitoring well, four Zone C piezometers, and one Zone C monitoring well).
	Letter	03-18-08	EPA approved proposed Phase 4 investigation in GRG's 2-11-08 letter.
	e-mail	06-18-08	GRG proposed deep soil boring location.
	e-mail	06-18-08	EPA approved proposed deep soil boring location.
	Telephone conversation	07-16-08	GRG provided preliminary Phase 4 data to EPA.
	e-mail	07-17-08	GRG proposed resampling of well NE4MW32C and sampling of four Zone C CPT piezometers.
	e-mail	07-23-08	Per EPA request, GRG provided description of procedures to be used for sampling CPT piezometers.
	e-mail	07-23-08	EPA approved proposed sampling procedures for CPT piezometers.
	Letter	08-12-08	GRG provided unvalidated Phase 4 data to EPA.
	e-mail	08-19-08	GRG provided preliminary data for NE4MW32C and four Zone C CPT piezometers.
	e-mail	09-03-08	GRG proposed resampling of well NE4MW32C.
	Letter	09-10-08	EPA approved proposed resampling of well NE4MW32C.
	e-mail	10-27-08	GRG provided updated Zone C data and proposed resampling of well NE4MW32C and installation of additional Zone C CPT piezometer.
	Letter	11-12-08	GRG provided validated Phase 4 data and proposed Phase 5 investigation (resampling of well NE4MW32C and installation of additional Zone C CPT piezometer).
	Letter	12-18-08	EPA approved proposed Phase 5 investigation.
Letter	02-09-09	GRG provided Phase 5 data.	

Notes:

¹Gulfco Restoration Group (GRG) refers to LDL Coastal Limited LP (LDL), Chromalloy American Corporation (Chromalloy) and The Dow Chemical Company (Dow), collectively.

TABLE 2 - EXTENT EVALUATION COMPARISON VALUES - INTRACOASTAL WATERWAY SEDIMENTS⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 21 of RI/FS Work Plan ⁽²⁾			PSV	Potential Site-Specific Background Values ⁽⁶⁾	Extent Evaluation Comparison Value
	TotSedComb ⁽³⁾	TCEQ Ecological Benchmark for Sediment ⁽⁴⁾	EPA EcoTox Threshold ⁽⁵⁾			
METALS						
Aluminum	1.5E+05	---	---	1.53E+05	3.31E+04	1.53E+05
Antimony	8.3E+01	---	---	8.32E+01	1.26E+01	8.32E+01
Arsenic	1.1E+02	8.20E+00	8.20E+00	8.20E+00	1.52E+01	1.52E+01
Barium	2.3E+04	---	---	8.00E+03	3.54E+02	8.00E+03
Beryllium	2.7E+01	---	---	2.66E+01	1.99E+00	2.66E+01
Boron	1.1E+05	---	---	1.07E+05	6.65E+01	1.07E+05
Cadmium	1.1E+03	1.20E+00	1.20E+00	1.20E+00	---	1.20E+00
Chromium	3.6E+04	8.10E+01	8.10E+01	8.10E+01	3.26E+01	8.10E+01
Chromium (VI)	1.4E+02	---	---	1.36E+02	---	1.36E+02
Cobalt	3.2E+04	---	---	3.20E+04	1.63E+01	3.20E+04
Copper	2.1E+04	3.40E+01	3.40E+01	3.40E+01	2.38E+01	3.40E+01
Iron	---	---	---	NV ⁸	---	NV
Lead	5.0E+02	4.67E+01	4.67E+01	4.67E+01	2.05E+01	4.67E+01
Lithium	1.1E+04	---	---	1.07E+04	6.51E+01	1.07E+04
Manganese	1.4E+04	---	---	1.40E+04	6.01E+02	1.40E+04
Mercury	3.4E+01	1.50E-01	1.50E-01	1.50E-01	5.76E-02	1.50E-01
Molybdenum	1.8E+03	---	---	1.84E+03	4.46E-01	1.84E+03
Nickel	1.4E+03	2.09E+01	2.09E+01	2.09E+01	3.95E+01	3.95E+01
Selenium	2.7E+03	---	---	2.66E+03	---	2.66E+03
Silver	3.5E+02	1.00E+00	1.00E+00	1.00E+00	---	1.00E+00
Strontium	1.5E+05	---	---	1.52E+05	1.26E+02	1.52E+05
Thallium	4.3E+01	---	---	4.3E+01	---	4.30E+01
Tin	9.2E+04	---	---	9.19E+04	---	9.19E+04
Titanium	1.0E+06	---	---	1.00E+06	6.36E+01	1.00E+06
Vanadium	3.3E+02	---	---	3.29E+02	4.79E+01	3.29E+02
Zinc	7.6E+04	1.50E+02	1.50E+02	1.50E+02	7.75E+01	1.50E+02
PESTICIDES						
4,4'-DDD	1.2E+02	1.22E-03	1.22E-03	1.22E-03	---	1.22E-03
4,4'-DDE	8.7E+01	2.07E-03	2.07E-03	2.07E-03	---	2.07E-03
4,4'-DDT	8.7E+01	1.19E-03	1.19E-03	1.19E-03	---	1.19E-03
Aldrin	8.4E-01	---	---	8.36E-01	---	8.36E-01
alpha-BHC	4.1E+00	---	---	4.05E+00	---	4.05E+00

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	Tot Sed _{Comb} ⁽³⁾	TCEQ Ecological Benchmark for Sediment ⁽⁴⁾	EPA EcoTox Threshold ⁽⁵⁾			
alpha-Chlordane	4.1E+01	0.00226 ⁽⁷⁾	---	2.26E-03	---	2.26E-03
beta-BHC	1.4E+01	---	---	1.42E+01	---	1.42E+01
delta-BHC	1.4E+01	---	---	1.42E+01	---	1.42E+01
Dieldrin	8.9E-01	7.15E-04	7.15E-04	7.15E-04	---	7.15E-04
Endosulfan I	3.1E+02	---	2.90E-03	2.90E-03	---	2.90E-03
Endosulfan II	9.2E+02	---	1.40E-02	1.40E-02	---	1.40E-02
Endosulfan sulfate	9.2E+02	---	---	9.19E+02	---	9.19E+02
Endrin	4.6E+01	---	3.50E-03	3.50E-03	---	3.50E-03
Endrin aldehyde	4.6E+01	---	---	4.59E+01	---	4.59E+01
Endrin ketone	4.6E+01	---	---	4.59E+01	---	4.59E+01
gamma-BHC (Lindane)	2.0E+01	3.20E-04	3.20E-04	3.20E-04	---	3.20E-04
gamma-Chlordane	4.1E+01	0.00226 ⁽⁷⁾	---	2.26E-03	---	2.26E-03
Heptachlor	3.2E+00	---	---	3.16E+00	---	3.16E+00
Heptachlor epoxide	1.6E+00	---	---	1.56E+00	---	1.56E+00
Methoxychlor	7.7E+02	---	1.90E-02	1.90E-02	---	1.90E-02
Toxaphene	1.3E+01	---	2.80E-02	2.80E-02	---	2.80E-02
PCBs	2.3E+00	2.27E-02	---	2.27E-02	---	2.27E-02
Aroclor-1016	---	---	---	NV	---	NV
Aroclor-1221	---	---	---	NV	---	NV
Aroclor-1232	---	---	---	NV	---	NV
Aroclor-1242	---	---	---	NV	---	NV
Aroclor-1248	---	---	---	NV	---	NV
Aroclor-1254	---	---	---	NV	---	NV
Aroclor-1260	---	---	---	NV	---	NV
VOCs						
1,1,1,2-Tetrachloroethane	2.1E+03	---	---	2.10E+03	---	2.10E+03
1,1,1-Trichloroethane	1.5E+05	2.63E+00	1.70E-01	1.70E-01	---	1.70E-01
1,1,2,2-Tetrachloroethane	2.7E+02	6.10E-01	9.40E-01	6.10E-01	---	6.10E-01
1,1,2-Trichloroethane	9.6E+02	3.00E-01	---	3.00E-01	---	3.00E-01
1,1-Dichloroethane	7.3E+04	---	---	7.35E+04	---	7.35E+04
1,1-Dichloroethene	3.7E+04	1.54E+01	---	1.54E+01	---	1.54E+01
1,1-Dichloropropene	5.4E+02	---	---	5.45E+02	---	5.45E+02
1,2,3-Trichloropropane	7.8E+00	---	---	7.79E+00	---	7.79E+00
1,2,4-Trichlorobenzene	1.5E+03	3.90E-01	9.20E+00	3.90E-01	---	3.90E-01
1,2,4-Trimethylbenzene	3.7E+04	2.16E+00	---	2.16E+00	---	2.16E+00
1,2-Dibromo-3-chloropropane	1.0E+01	---	---	1.01E+01	---	1.01E+01
1,2-Dibromoethane	2.7E+01	---	---	2.72E+01	---	2.72E+01

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	TotSedComb ⁽³⁾	TCEQ Ecological Benchmark for Sediment ⁽⁴⁾	EPA EcoTox Threshold ⁽⁵⁾			
1,2-Dichlorobenzene	6.6E+04	7.40E-01	3.40E-01	3.40E-01	---	3.40E-01
1,2-Dichloroethane	6.0E+02	4.30E+00	---	4.30E+00	---	4.30E+00
1,2-Dichloropropane	8.0E+02	2.82E+00	---	2.82E+00	---	2.82E+00
1,3,5-Trimethylbenzene	3.7E+04	---	---	3.67E+04	---	3.67E+04
1,3-Dichlorobenzene	2.2E+04	3.20E-01	1.70E+00	3.20E-01	---	3.20E-01
1,3-Dichloropropane	5.4E+02	4.00E-02	---	4.00E-02	---	4.00E-02
1,4-Dichlorobenzene	2.3E+03	7.00E-01	3.50E-01	3.50E-01	---	3.50E-01
2,2-Dichloropropane	8.0E+02	---	---	8.01E+02	---	8.01E+02
2-Butanone	4.4E+05	---	---	4.41E+05	---	4.41E+05
2-Chloroethylvinyl ether	5.0E+01	---	---	4.95E+01	---	4.95E+01
2-Chlorotoluene	3.1E+03	---	---	3.06E+03	---	3.06E+03
2-Hexanone	4.4E+04	---	---	4.41E+04	---	4.41E+04
4-Chlorotoluene	1.5E+04	---	---	1.47E+04	---	1.47E+04
4-Isopropyltoluene	7.3E+04	---	---	7.35E+04	---	7.35E+04
4-Methyl-2-pentanone	5.9E+04	4.53E+01	---	4.53E+01	---	4.53E+01
Acetone	6.6E+05	1.67E+02	---	1.67E+02	---	1.67E+02
Acrolein	3.7E+02	---	---	3.67E+02	---	3.67E+02
Acrylonitrile	1.0E+02	1.70E-01	---	1.70E-01	---	1.70E-01
Benzene	9.9E+02	1.40E-01	5.70E-02	5.70E-02	---	5.70E-02
Bromobenzene	1.5E+04	---	---	1.47E+04	---	1.47E+04
Bromodichloromethane	8.8E+02	---	---	8.79E+02	---	8.79E+02
Bromoform	6.9E+03	1.78E+00	6.50E-01	6.50E-01	---	6.50E-01
Bromomethane	1.0E+03	---	---	1.03E+03	---	1.03E+03
Butanol	7.3E+04	---	---	7.35E+04	---	7.35E+04
Carbon disulfide	7.3E+04	---	---	7.35E+04	---	7.35E+04
Carbon tetrachloride	4.2E+02	3.67E+00	1.20E+00	1.20E+00	---	1.20E+00
Chlorobenzene	1.5E+04	2.90E-01	8.20E-01	2.90E-01	---	2.90E-01
Chloroethane	2.9E+05	---	---	2.94E+05	---	2.94E+05
Chloroform	7.3E+03	4.30E+00	---	4.30E+00	---	4.30E+00
Chloromethane	4.2E+03	8.74E+00	---	8.74E+00	---	8.74E+00
cis-1,2-Dichloroethene	7.3E+03	---	---	7.35E+03	---	7.35E+03
cis-1,3-Dichloropropene	7.3E+01	---	---	7.35E+01	---	7.35E+01
Dibromochloromethane	6.5E+02	---	---	6.49E+02	---	6.49E+02
Dibromomethane	7.3E+03	---	---	7.27E+03	---	7.27E+03
Dichlorodifluoromethane	1.5E+05	---	---	1.47E+05	---	1.47E+05
Ethylbenzene	7.3E+04	6.50E-01	3.60E+00	6.50E-01	---	6.50E-01
Hexachlorobutadiene	3.1E+01	2.00E-02	---	2.00E-02	---	2.00E-02

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Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 21 of RI/FS Work Plan ⁽²⁾			PSV	Potential Site-Specific Background Values ⁽⁶⁾	Extent Evaluation Comparison Value
	TotSedComb ⁽³⁾	TCEQ Ecological Benchmark for Sediment ⁽⁴⁾	EPA EcoTox Threshold ⁽⁵⁾			
Isopropylbenzene (Cumene)	7.3E+04	---	---	7.35E+04	---	7.35E+04
Methyl acetate	7.3E+05	---	---	7.35E+05	---	7.35E+05
Methyl iodide	1.0E+03	---	---	1.03E+03	---	1.03E+03
Methylcyclohexane	1.0E+06	---	---	1.00E+06	---	1.00E+06
Methylene chloride	7.3E+03	3.82E+00	---	3.82E+00	---	3.82E+00
Naphthalene	2.5E+03	1.60E-01	1.60E-01	1.60E-01	---	1.60E-01
n-Butylbenzene	6.1E+03	---	---	6.12E+03	---	6.12E+03
n-Propylbenzene	2.9E+04	---	---	2.94E+04	---	2.94E+04
o-Xylene	1.0E+06	---	---	1.00E+06	---	1.00E+06
sec-Butylbenzene	2.9E+04	---	---	2.94E+04	---	2.94E+04
Styrene	1.5E+05	3.72E+00	---	3.72E+00	---	3.72E+00
tert-Butyl methyl ether (MTBE)	7.3E+03	---	---	7.35E+03	---	7.35E+03
tert-Butylbenzene	2.9E+04	---	---	2.94E+04	---	2.94E+04
Tetrachloroethene	1.0E+03	3.10E+00	5.30E-01	5.30E-01	---	5.30E-01
Toluene	5.9E+04	9.40E-01	6.70E-01	6.70E-01	---	6.70E-01
trans-1,2-Dichloroethene	1.5E+04	---	---	1.47E+04	---	1.47E+04
trans-1,3-Dichloropropene	5.4E+02	---	---	5.45E+02	---	5.45E+02
Trichloroethene	4.4E+03	1.47E+00	1.60E+00	1.47E+00	---	1.47E+00
Trichlorofluoromethane	2.2E+05	---	---	2.20E+05	---	2.20E+05
Trichlorotrifluoroethane	1.0E+06	---	---	1.00E+06	---	1.00E+06
Vinyl acetate	7.3E+05	---	---	7.35E+05	---	7.35E+05
Vinyl chloride	3.6E+01	---	---	3.63E+01	---	3.63E+01
Xylene (total)	1.5E+05	2.54E+00	---	2.54E+00	---	2.54E+00
SVOCs						
1,2Diphenylhydrazine/Azobenzen	1.3E+02	---	---	1.3E+02	---	1.30E+02
2,4,5-Trichlorophenol	1.5E+04	---	---	1.53E+04	---	1.53E+04
2,4,6-Trichlorophenol	1.3E+03	---	---	1.29E+03	---	1.29E+03
2,4-Dichlorophenol	4.6E+02	---	---	4.59E+02	---	4.59E+02
2,4-Dimethylphenol	3.1E+03	---	---	3.06E+03	---	3.06E+03
2,4-Dinitrophenol	3.1E+02	---	---	3.06E+02	---	3.06E+02
2,4-Dinitrotoluene	2.1E+01	---	---	2.09E+01	---	2.09E+01
2,6-Dinitrotoluene	2.1E+01	---	---	2.09E+01	---	2.09E+01
2-Chloronaphthalene	9.9E+03	---	---	9.90E+03	---	9.90E+03
2-Chlorophenol	3.7E+03	---	---	3.67E+03	---	3.67E+03
2-Methylnaphthalene	4.9E+02	7.00E-02	7.00E-02	7.00E-02	---	7.00E-02
2-Nitroaniline	4.6E+01	---	---	4.59E+01	---	4.59E+01
2-Nitrophenol	3.1E+02	---	---	3.06E+02	---	3.06E+02

TABLE 2 - EXTENT EVALUATION COMPARISON VALUES - INTRACOASTAL WATERWAY SEDIMENTS⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 21 of RI/FS Work Plan ⁽²⁾			PSV	Potential Site-Specific Background Values ⁽⁶⁾	Extent Evaluation Comparison Value
	TotSedComb ⁽³⁾	TCEQ Ecological Benchmark for Sediment ⁽⁴⁾	EPA EcoTox Threshold ⁽⁵⁾			
3,3'-Dichlorobenzidine	3.2E+01	---	---	3.16E+01	---	3.16E+01
3-Nitroaniline	4.6E+01	---	---	4.59E+01	---	4.59E+01
4,6-Dinitro-2-methylphenol	3.1E+02	---	---	3.06E+02	---	3.06E+02
4-Bromophenyl phenyl ether	9.5E-01	---	1.30E+00	9.47E-01	---	9.47E-01
4-Chloro-3-methylphenol	7.7E+02	---	---	7.65E+02	---	7.65E+02
4-Chloroaniline	6.1E+02	---	---	6.12E+02	---	6.12E+02
4-Chlorophenyl phenyl ether	9.5E-01	---	---	9.47E-01	---	9.47E-01
4-Nitroaniline	3.7E+02	---	---	3.74E+02	---	3.74E+02
4-Nitrophenol	3.1E+02	---	---	3.06E+02	---	3.06E+02
Acenaphthene	7.4E+03	1.60E-02	1.60E-02	1.60E-02	---	1.60E-02
Acenaphthylene	7.4E+03	4.40E-02	4.40E-02	4.40E-02	---	4.40E-02
Acetophenone	1.5E+04	---	---	1.53E+04	---	1.53E+04
Aniline	1.1E+03	---	---	1.07E+03	---	1.07E+03
Anthracene	3.7E+04	8.53E-02	8.53E-02	8.53E-02	---	8.53E-02
Atrazine (Aatrex)	6.4E+01	---	---	6.40E+01	---	6.40E+01
Benzaldehyde	7.3E+04	---	---	7.35E+04	---	7.35E+04
Benzidine	6.2E-02	---	---	6.18E-02	---	6.18E-02
Benzo(a)anthracene	1.6E+01	2.61E-01	2.61E-01	2.61E-01	---	2.61E-01
Benzo(a)pyrene	1.6E+00	4.30E-01	4.30E-01	4.30E-01	---	4.30E-01
Benzo(b)fluoranthene	1.6E+01	---	---	1.59E+01	---	1.59E+01
Benzo(g,h,i)perylene	3.7E+03	---	---	3.71E+03	---	3.71E+03
Benzo(k)fluoranthene	1.6E+02	---	---	1.59E+02	---	1.59E+02
Benzoic acid	6.1E+05	---	---	6.12E+05	---	6.12E+05
Benzyl alcohol	4.6E+04	---	---	4.59E+04	---	4.59E+04
Biphenyl	7.7E+03	---	1.10E+00	1.10E+00	---	1.10E+00
Bis(2-Chloroethoxy)methane	1.3E+01	---	---	1.29E+01	---	1.29E+01
Bis(2-Chloroethyl)ether	5.0E+01	---	---	4.95E+01	---	4.95E+01
Bis(2-Chloroisopropyl)ether	2.0E+02	---	---	2.03E+02	---	2.03E+02
Bis(2-Ethylhexyl)phthalate	2.4E+02	1.82E-01	1.82E-01	1.82E-01	---	1.82E-01
Butyl benzyl phthalate	3.1E+04	---	1.10E+01	1.10E+01	---	1.10E+01
Caprolactam	7.7E+04	---	---	7.65E+04	---	7.65E+04
Carbazole	7.1E+02	---	---	7.10E+02	---	7.10E+02
Chrysene	1.6E+03	3.84E-01	3.84E-01	3.84E-01	---	3.84E-01
Dibenz(a,h)anthracene	1.6E+00	6.34E-02	6.34E-02	6.34E-02	---	6.34E-02
Dibenzofuran	6.1E+02	---	2.00E+00	2.00E+00	---	2.00E+00
Diethyl phthalate	1.2E+05	---	6.30E-01	6.30E-01	---	6.30E-01
Dimethyl phthalate	1.2E+05	---	---	1.22E+05	---	1.22E+05

TABLE 2 - EXTENT EVALUATION COMPARISON VALUES - INTRACOASTAL WATERWAY SEDIMENTS⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 21 of RI/FS Work Plan ⁽²⁾			PSV	Potential Site-Specific Background Values ⁽⁶⁾	Extent Evaluation Comparison Value
	TotSed _{Comb} ⁽³⁾	TCEQ Ecological Benchmark for Sediment ⁽⁴⁾	EPA EcoTox Threshold ⁽⁵⁾			
Di-n-butyl phthalate	1.5E+04	---	1.10E+01	1.10E+01	---	1.10E+01
Di-n-octyl phthalate	3.1E+03	---	---	3.06E+03	---	3.06E+03
Fluoranthene	4.9E+03	6.00E-01	6.00E-01	6.00E-01	---	6.00E-01
Fluorene	4.9E+03	1.90E-02	1.90E-02	1.90E-02	---	1.90E-02
Hexachlorobenzene	8.9E+00	---	---	8.88E+00	---	8.88E+00
Hexachlorocyclopentadiene	9.2E+02	---	---	9.19E+02	---	9.19E+02
Hexachloroethane	1.5E+02	---	1.00E+00	1.00E+00	---	1.00E+00
Indeno(1,2,3-cd)pyrene	1.6E+01	---	---	1.59E+01	---	1.59E+01
Isophorone	1.5E+04	---	---	1.50E+04	---	1.50E+04
Nitrobenzene	7.7E+01	---	---	7.65E+01	---	7.65E+01
n-Nitrosodimethylamine	1.1E+00	---	---	1.07E+00	---	1.07E+00
n-Nitrosodi-n-propylamine	6.3E-01	---	---	6.31E-01	---	6.31E-01
n-Nitrosodiphenylamine	9.0E+02	---	---	9.01E+02	---	9.01E+02
o-Cresol	7.7E+03	---	---	7.65E+03	---	7.65E+03
Pentachlorophenol	5.6E+01	---	---	5.61E+01	---	5.61E+01
Phenanthrene	3.7E+03	2.40E-01	2.40E-01	2.40E-01	---	2.40E-01
Phenol	4.6E+04	---	---	4.59E+04	---	4.59E+04
Pyrene	3.7E+03	6.65E-01	6.65E-01	6.65E-01	---	6.65E-01
Pyridine	7.3E+02	---	---	7.35E+02	---	7.35E+02
Chloride	---	---	---	NV	NV	NV
Sulfate	---	---	---	NV	NV	NV
Total Moisture	---	---	---	NV	NV	NV
Total Organic Carbon	---	---	---	NV	NV	NV

Notes

1. All values in mg/kg.
2. Values from Table 21 of RI/FS Work Plan (updated to reflect changes since 2005 where applicable)
3. TotSed_{Comb} PCL = TCEQ Protective Concentration Level for total sediment combined pathway (includes inhalation; ingestion; dermal pathways).
4. From Table 3-3 of TCEQ "Guidance for Conducting Ecological Risk Assessments at Remediation Sites in Texas".
5. From Table 2 of EPA "Ecotox Thresholds" ECO Update January 1996.
6. 95% UTL calculated from site-specific background samples.
7. Value listed is for total Chlordane.
8. NV = No Preliminary Screening Value.

TABLE 3 - DETECTED INTRACOASTAL WATERWAY SEDIMENT CONCENTRATIONS EXCEEDING EXTENT EVALUATION COMPARISON VALUES

Sample Location	Date	Chemical of Interest	Concentration (mg/kg)	Extent Evaluation Comparison Value ⁽¹⁾ (mg/kg)
IWSE01	6/26/2006	4,4'-DDT	0.00332J	0.00119
IWSE03	6/26/2006	Acenaphthene	0.0631J	0.016
		Benzo(a)anthracene	0.395	0.261
		Benzo(a)pyrene	0.445	0.43
		Chrysene	0.475J	0.384
		Dibenz(a,h)anthracene	0.151	0.0634
		Fluoranthene	0.804J-	0.6
		Fluorene	0.046J	0.019
		Phenanthrene	0.508	0.24
		Pyrene	0.862	0.665
IWSE04	6/26/2006	Dibenz(a,h)anthracene	0.0694J	0.0634
IWSE05	6/26/2006	Fluorene	0.0241J	0.019
IWSE07	6/26/2006	Acenaphthene	0.0239J	0.016
		Dibenz(a,h)anthracene	0.235	0.0634
		Fluorene	0.0277J	0.019

Notes:

(1) Extent Evaluation Comparison Values from Table 2.

(2) Data qualifiers: J = estimated value. J- = estimated value, biased low.

TABLE 4 - SURFACE WATER EXTENT EVALUATION COMPARISON VALUES ⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 20 of RI/FS Work Plan ⁽²⁾		Extent Evaluation Comparison Value
	Human Health Surface Water Risk Based Exposure Limits ^(SW) RBELs) Saltwater Fish Only ⁽³⁾	TCEQ Ecological Benchmark for Water ⁽⁴⁾	
METALS ⁽⁵⁾			
Aluminum	---	---	NV
Antimony	6.40E-01	---	6.40E-01
Arsenic	1.40E-03	---	1.40E-03
Dissolved Arsenic	---	7.80E-02	7.80E-02
Barium	---	2.50E+01	2.50E+01
Beryllium	---	---	NV
Boron	---	---	NV
Dissolved Cadmium	---	1.00E-02	1.00E-02
Dissolved Chromium	2.22E+00	1.03E-01	1.03E-01
Dissolved Chromium (VI)	---	4.96E-02	4.96E-02
Cobalt	---	---	NV
Dissolved Copper	---	3.60E-03	3.60E-03
Ferric Iron	---	---	NV
Iron	---	---	NV
Dissolved Lead	1.69E-02	5.30E-03	5.30E-03
Lithium	---	---	NV
Manganese	1.00E-01	---	1.00E-01
Mercury	2.50E-05	1.10E-03	2.50E-05
Molybdenum	---	---	NV
Nickel	4.60E+00	---	4.60E+00
Dissolved Nickel	---	1.31E-02	1.31E-02
Selenium	4.20E+00	1.36E-01	1.36E-01
Dissolved Silver	---	1.90E-04	1.90E-04
Strontium	---	---	NV
Thallium	4.70E-04	2.13E-02	4.70E-04
Tin	---	---	NV
Titanium	---	---	NV
Vanadium	---	---	NV
Zinc	2.60E+01	---	2.60E+01
Dissolved Zinc	---	8.42E-02	8.42E-02

TABLE 4 - SURFACE WATER EXTENT EVALUATION COMPARISON VALUES ⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 20 of RI/FS Work Plan ⁽²⁾		Extent Evaluation Comparison Value
	Human Health Surface Water Risk Based Exposure Limits (^{SW} RBELs) Saltwater Fish Only ⁽³⁾	TCEQ Ecological Benchmark for Water ⁽⁴⁾	
PESTICIDES			NV
4,4'-DDD	7.00E-06	2.50E-05	7.00E-06
4,4'-DDE	5.00E-06	1.40E-04	5.00E-06
4,4'-DDT	5.00E-06	1.00E-06	1.00E-06
Aldrin	2.80E-06	1.30E-04	2.80E-06
alpha-BHC	---	2.50E-02	2.50E-02
alpha-Chlordane	2.13E-05	---	2.13E-05
beta-BHC	---	---	NV
delta-BHC	---	---	NV
Dieldrin	---	2.00E-06	2.00E-06
Endosulfan I	8.90E-02	9.00E-06	9.00E-06
Endosulfan II	8.90E-02	9.00E-06	9.00E-06
Endosulfan sulfate	8.90E-02	9.00E-06	9.00E-06
Endrin	8.93E-04	2.00E-06	2.00E-06
Endrin aldehyde	3.00E-04	---	3.00E-04
Endrin ketone	---	---	NV
gamma-BHC (Lindane)	---	1.60E-05	1.60E-05
gamma-Chlordane	---	---	NV
Heptachlor	1.77E-06	4.00E-06	1.77E-06
Heptachlor epoxide	7.23E-04	3.60E-06	3.60E-06
Methoxychlor	1.48E-03	3.00E-05	3.00E-05
Toxaphene	9.00E-06	2.00E-07	2.00E-07
PCBs	8.85E-07	3.00E-05	8.85E-07
Aroclor-1016	---	---	NV
Aroclor-1221	---	---	NV
Aroclor-1232	---	---	NV
Aroclor-1242	---	---	NV
Aroclor-1248	---	---	NV
Aroclor-1254	---	---	NV
Aroclor-1260	---	---	NV

TABLE 4 - SURFACE WATER EXTENT EVALUATION COMPARISON VALUES ⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 20 of RI/FS Work Plan ⁽²⁾		Extent Evaluation Comparison Value
	Human Health Surface Water Risk Based Exposure Limits (^{SW} RBELs) Saltwater Fish Only ⁽³⁾	TCEQ Ecological Benchmark for Water ⁽⁴⁾	
VOCs			
1,1,1,2-Tetrachloroethane	---	---	NV
1,1,1-Trichloroethane	---	1.56E+00	1.56E+00
1,1,2,2-Tetrachloroethane	4.00E-02	4.51E-01	4.00E-02
1,1,2-Trichloroethane	---	2.75E-01	2.75E-01
1,1-Dichloroethane	---	---	NV
1,1-Dichloroethene	---	1.25E+01	1.25E+01
1,1-Dichloropropene	---	---	NV
1,2,3-Trichloropropane	---	---	NV
1,2,4-Trichlorobenzene	7.00E-02	2.20E-02	2.20E-02
1,2,4-Trimethylbenzene	---	2.17E-01	2.17E-01
1,2-Dibromo-3-chloropropane	---	---	NV
1,2-Dibromoethane	2.23E-04	---	2.23E-04
1,2-Dichlorobenzene	1.30E+00	9.90E-02	9.90E-02
1,2-Dichloroethane	4.93E-02	5.65E+00	4.93E-02
1,2-Dichloroethene(Total)	---	6.80E-01	6.80E-01
1,2-Dichloropropane	1.50E-01	2.40E+00	1.50E-01
1,3,5-Trimethylbenzene	---	---	NV
1,3-Dichlorobenzene	9.60E-01	1.42E-01	1.42E-01
1,3-Dichloropropane	1.50E-01	---	1.50E-01
1,4-Dichlorobenzene	1.90E-01	9.90E-02	9.90E-02
2,2-Dichloropropane	---	---	NV
2-Butanone	---	---	NV
2-Chloroethylvinyl ether	---	---	NV
2-Chlorotoluene	---	---	NV
2-Hexanone	---	---	NV
4-Chlorotoluene	---	---	NV
4-Isopropyltoluene	---	---	NV
4-Methyl-2-pentanone	---	6.15E+01	6.15E+01

TABLE 4 - SURFACE WATER EXTENT EVALUATION COMPARISON VALUES ⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 20 of RI/FS Work Plan ⁽²⁾		Extent Evaluation Comparison Value
	Human Health Surface Water Risk Based Exposure Limits (^{SW} RBELs) Saltwater Fish Only ⁽³⁾	TCEQ Ecological Benchmark for Water ⁽⁴⁾	
Acetone	---	2.82E+02	2.82E+02
Acrolein	2.90E-01	5.00E-03	5.00E-03
Acrylonitrile	7.30E-03	2.91E-01	7.30E-03
Benzene	7.08E-02	1.09E-01	7.08E-02
Bromobenzene	---	---	NV
Bromodichloromethane	---	---	NV
Bromoform	1.40E+00	1.22E+00	1.22E+00
Bromomethane	---	6.00E-01	6.00E-01
Butanol	---	---	NV
Carbon disulfide	---	---	NV
Carbon tetrachloride	5.60E-03	1.50E+00	5.60E-03
Chlorobenzene	9.20E-01	1.05E-01	1.05E-01
Chloroethane	---	---	NV
Chloroform	8.61E-01	4.10E+00	8.61E-01
Chloromethane	---	1.35E+01	1.35E+01
cis-1,2-Dichloroethene	---	6.80E-01	6.80E-01
cis-1,3-Dichloropropene	1.07E-01	---	1.07E-01
Cyclohexane	---	---	NV
Dibromochloromethane	4.77E-02	---	4.77E-02
Dibromomethane	---	---	NV
Dichlorodifluoromethane	---	---	NV
Ethylbenzene	2.10E+00	2.49E-01	2.49E-01
Hexachlorobutadiene	2.40E-03	3.20E-04	3.20E-04
Isopropylbenzene (Cumene)	---	---	NV
m,p-Xylene	---	---	NV
Methyl acetate	---	---	NV
Methyl iodide	---	---	NV
Methylcyclohexane	---	---	NV
Methylene chloride	5.90E+00	5.42E+00	5.42E+00
Naphthalene	---	1.25E-01	1.25E-01
n-Butylbenzene	---	---	NV

TABLE 4 - SURFACE WATER EXTENT EVALUATION COMPARISON VALUES ⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 20 of RI/FS Work Plan ⁽²⁾		Extent Evaluation Comparison Value
	Human Health Surface Water Risk Based Exposure Limits (^{SW} RBELs) Saltwater Fish Only ⁽³⁾	TCEQ Ecological Benchmark for Water ⁽⁴⁾	
n-Propylbenzene	---	---	NV
o-Xylene	---	---	NV
sec-Butylbenzene	---	---	NV
Styrene	---	4.55E-01	4.55E-01
tert-Butyl methyl ether (MTBE)	---	---	NV
tert-Butylbenzene	---	---	NV
Tetrachloroethene	---	1.45E+00	1.45E+00
Toluene	1.50E+01	4.80E-01	4.80E-01
trans-1,2-Dichloroethene	---	6.80E-01	6.80E-01
trans-1,3-Dichloropropene	1.07E-01	---	1.07E-01
trans-1,4-Dichloro-2-butene	---	---	NV
Trichloroethene	---	9.70E-01	9.70E-01
Trichlorofluoromethane	---	---	NV
Trichlorotrifluoroethane	---	---	NV
Vinyl acetate	---	---	NV
Vinyl chloride	2.77E-01	---	2.77E-01
Xylene (total)	---	8.50E-01	8.50E-01
SVOCs			
1,2-Diphenylhydrazine/Azobenzene	2.00E-03	---	2.00E-03
2,4,5-Trichlorophenol	7.12E-01	1.20E-02	1.20E-02
2,4,6-Trichlorophenol	2.40E-02	6.10E-02	2.40E-02
2,4-Dichlorophenol	2.90E-01	---	2.90E-01
2,4-Dimethylphenol	8.50E-01	---	8.50E-01
2,4-Dinitrophenol	5.30E+00	6.70E-01	6.70E-01
2,4-Dinitrotoluene	3.40E-02	---	3.40E-02
2,6-Dinitrotoluene	---	---	NV
2-Chloronaphthalene	1.60E+00	---	1.60E+00
2-Chlorophenol	1.50E-01	2.65E-01	1.50E-01
2-Methylnaphthalene	---	3.00E-02	3.00E-02
2-Nitroaniline	---	---	NV
2-Nitrophenol	---	1.47E+00	1.47E+00
3,3'-Dichlorobenzidine	2.80E-04	3.70E-02	2.80E-04
3-Nitroaniline	---	---	NV
4,6-Dinitro-2-methylphenol	---	---	NV

TABLE 4 - SURFACE WATER EXTENT EVALUATION COMPARISON VALUES ⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 20 of RI/FS Work Plan ⁽²⁾		Extent Evaluation Comparison Value
	Human Health Surface Water Risk Based Exposure Limits (^{SW} RBELs) Saltwater Fish Only ⁽³⁾	TCEQ Ecological Benchmark for Water ⁽⁴⁾	
4-Bromophenyl phenyl ether	---	---	NV
4-Chloro-3-methylphenol	---	---	NV
4-Chloroaniline	---	---	NV
4-Chlorophenyl phenyl ether	---	---	NV
4-Nitroaniline	---	---	NV
4-Nitrophenol	---	3.59E-01	3.59E-01
Acenaphthene	9.90E-01	4.04E-02	4.04E-02
Acenaphthylene	---	---	NV
Acetophenone	---	---	NV
Aniline	---	---	NV
Anthracene	4.00E+01	1.80E-04	1.80E-04
Atrazine (Aatrex)	---	---	NV
Benzaldehyde	---	---	NV
Benidine	---	---	NV
Benzo(a)anthracene	---	---	NV
Benzo(a)pyrene	---	---	NV
Benzo(b)fluoranthene	---	---	NV
Benzo(g,h,i)perylene	---	---	NV
Benzo(k)fluoranthene	---	---	NV
Benzoic acid	---	---	NV
Benzyl alcohol	---	---	NV
Biphenyl	---	---	NV
Bis(2-Chloroethoxy)methane	---	---	NV
Bis(2-Chloroethyl)ether	---	---	NV
Bis(2-Chloroisopropyl)ether	---	---	NV
Bis(2-Ethylhexyl)phthalate	---	---	NV
Butyl benzyl phthalate	1.90E+00	1.47E-01	1.47E-01
Caprolactam	---	---	NV
Carbazole	---	---	NV
Chrysene	---	---	NV
Dibenz(a,h)anthracene	---	---	NV
Dibenzofuran	---	6.50E-02	6.50E-02
Diethyl phthalate	4.40E+01	4.42E-01	4.42E-01
Dimethyl phthalate	1.10E+03	5.80E-01	5.80E-01

TABLE 4 - SURFACE WATER EXTENT EVALUATION COMPARISON VALUES ⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 20 of RI/FS Work Plan ⁽²⁾		Extent Evaluation Comparison Value
	Human Health Surface Water Risk Based Exposure Limits (^{SW} RBELs) Saltwater Fish Only ⁽³⁾	TCEQ Ecological Benchmark for Water ⁽⁴⁾	
Di-n-butyl phthalate	4.50E+00	5.00E-03	5.00E-03
Di-n-octyl phthalate	---	---	NV
Fluoranthene	1.40E-01	2.96E-03	2.96E-03
Fluorene	5.30E+00	5.00E-02	5.00E-02
Hexachlorobenzene	---	---	NV
Hexachlorocyclopentadiene	1.10E+00	7.00E-05	7.00E-05
Hexachloroethane	1.85E-01	9.40E-03	9.40E-03
Indeno(1,2,3-cd)pyrene	---	---	NV
Isophorone	9.60E+00	6.50E-01	6.50E-01
m,p-Cresol	---	---	NV
Nitrobenzene	1.56E-01	6.68E-02	6.68E-02
n-Nitrosodimethylamine	3.00E-02	1.65E+02	3.00E-02
n-Nitrosodi-n-propylamine	5.10E-03	1.20E-01	5.10E-03
n-Nitrosodiphenylamine	6.00E-02	1.65E+02	6.00E-02
o-Cresol	8.74E+00	5.10E-01	5.10E-01
Pentachlorophenol	9.00E-02	9.60E-03	9.60E-03
Phenanthrene	---	4.60E-03	4.60E-03
Phenol	1.70E+03	2.75E+00	2.75E+00
Pyrene	4.00E+00	2.40E-04	2.40E-04
Pyridine	8.89E+00	---	8.89E+00
Chloride	---	---	NV
Sulfate	---	---	NV
Total Dissolved Solids(TDS)	---	---	NV
Total Suspended Solids	---	---	NV
Total Organic Carbon	---	---	NV
Hardness	---	---	NV

Notes:

1. All values in mg/L.
2. Values from Table 20 of RI/FS Work Plan (updated to reflect changes since 2005 where applicable).
3. From TCEQ Aquatic Life Surface Water RBEL Table and Human Health Surface Water RBEL Table.
4. From Table 3-2 of TCEQ "Guidance for Conducting Ecological Risk Assessments at Remediation Sites in Texas."
5. Metals values are for total concentrations unless indicated otherwise.
6. NV = No Preliminary Screening Value.

TABLE 5 - FISH TISSUE DATA

Sample ID	4,4'-DDE (mg/kg)	4,4'-DDT (mg/kg)	Benzo(a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo(b) fluoranthene (mg/kg)	Benzo(k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenz(a,h) anthracene (mg/kg)	Hexachloro benzene (mg/kg)	Indeno(1,2,3- cd)pyrene (mg/kg)	Lead (mg/kg)	Silver (mg/kg)	% Moisture	% Lipids
BLUE CRAB														
IW-BC-00401	<0.00723	<0.00578	<0.056	<0.035	<0.045	<0.038	<0.029	<0.047	<0.056	<0.023	<0.19	<0.053	80.1	0.07
IW-BC-00402	<0.00716	<0.00572	<0.584	<0.359	<0.467	<0.392	<0.298	<0.494	<0.58	<0.235	<0.19	<0.053	81	0.1
IW-BC-00403	<0.00745	<0.00595	<0.056	<0.035	<0.045	<0.038	<0.029	<0.047	<0.056	<0.023	<0.19	<0.053	81.3	0.33
IW-BC-00404	<0.00738	<0.00589	<0.057	<0.035	<0.045	<0.038	<0.029	<0.048	<0.056	<0.023	<0.19	<0.053	78.8	0.08
IW-BC-00405	<0.00723	<0.00578	<0.057	<0.035	<0.046	<0.038	<0.029	<0.048	<0.056	<0.023	<0.19	<0.053	80.5	0.2
IW-BC-00406	<0.0073	<0.00583	<0.057	<0.352	<0.458	<0.384	<0.029	<0.484	<0.056	<0.023	<0.19	<0.053	79.9	0.02
IW-BC-00409	<0.00738	<0.00589	<0.567	<0.348	<0.453	<0.38	<0.289	<0.479	<0.562	<0.229	<0.19	0.11 J	80	0.04
IW-BC-00410	<0.0073	<0.00583	<0.561	<0.345	<0.449	<0.377	<0.286	<0.475	<0.558	<0.226	<0.19	0.078 J	83.3	0.02
IW-BC-00411	<0.00745	<0.00595	<0.058	<0.036	<0.047	<0.039	<0.03	<0.049	<0.058	<0.024	<0.19	<0.053	79.9	0.01
RED DRUM														
IW-RD-00001	<0.0073	<0.00583	<0.058	<0.036	<0.047	<0.039	<0.03	<0.049	<0.058	<0.024	<0.19	<0.053	76.6	0.06
IW-RD-00002	<0.00716	<0.00572	<0.057	<0.035	<0.046	<0.038	<0.029	<0.048	<0.056	<0.023	<0.19	<0.053	80.7	0.12
IW-RD-00003	<0.00723	<0.00578	<0.584	<0.359	<0.467	<0.392	<0.298	<0.494	<0.58	<0.235	<0.19	<0.053	79	2.77
IW-RD-00004	<0.00745	<0.00595	<0.567	<0.348	<0.453	<0.38	<0.289	<0.479	<0.562	<0.229	<0.19	<0.053	81.8	0.03
IW-RD-00005	<0.0073	<0.00583	<0.567	<0.348	<0.453	<0.38	<0.289	<0.479	<0.562	<0.229	<0.19	<0.053	78.7	0.16
IW-RD-00006	<0.00745	<0.00595	<0.572	<0.352	<0.458	<0.384	<0.292	<0.484	<0.568	<0.231	<0.19	<0.053	79.6	0.01
SOUTHERN FLOUNDER														
IW-SF-00301	<0.00745	<0.00595	<0.058	<0.036	<0.046	<0.039	<0.029	<0.049	<0.058	<0.023	<0.19	0.22 J	78	0.49
IW-SF-00302	<0.0073	<0.00583	<0.056	<0.035	0.048 J	<0.038	<0.029	<0.047	<0.056	<0.023	<0.19	<0.053	78.6	1.24
IW-SF-00303	<0.0073	<0.00583	<0.057	<0.352	<0.458	<0.384	<0.029	<0.484	<0.056	<0.023	<0.19	<0.053	77.3	1.24
IW-SF-00304	<0.00723	<0.00578	<0.057	<0.348	<0.453	<0.38	<0.029	<0.479	<0.056	<0.023	<0.19	<0.053	77.8	2.19
IW-SF-00305	<0.00738	<0.00589	<0.561	<0.345	<0.449	<0.377	<0.286	<0.475	<0.558	<0.226	<0.19	<0.053	78.9	0.1
IW-SF-00306	<0.00745	<0.00595	<0.584	<0.359	<0.467	<0.392	<0.298	<0.494	<0.58	<0.235	<0.19	<0.053	77.7	0.1
IW-SF-00307	<0.00745	<0.00595	<0.561	<0.345	<0.449	<0.377	<0.286	<0.475	<0.558	<0.226	<0.19	<0.053	79.1	0.08
IW-SF-00308	<0.00716	<0.00572	<0.578	<0.355	<0.462	<0.388	<0.295	<0.489	<0.574	<0.233	<0.19	<0.053	78.3	0.06
IW-SF-00309	<0.00738	<0.00589	<0.584	<0.359	<0.467	<0.392	<0.298	<0.494	<0.58	<0.235	<0.19	<0.053	77.4	0.06
SPECKLED TROUT														
IW-ST-00101	<0.00745	<0.00595	<0.057	<0.035	<0.045	<0.038	<0.029	<0.048	<0.056	<0.023	<0.19	<0.053	77.9	0.08
IW-ST-00102	<0.00745	<0.00595	<0.058	<0.036	0.049 J	<0.039	<0.03	<0.049	<0.058	<0.024	<0.19	<0.053	73	1.13
IW-ST-00103	<0.00738	<0.00589	<0.058	<0.036	<0.047	<0.039	<0.03	<0.049	<0.058	<0.024	<0.19	<0.053	76.2	0.31
IW-ST-00104	0.012	<0.00589	<0.058	<0.359	<0.467	<0.392	<0.03	<0.494	<0.058	<0.024	<0.19	0.18 J	76.4	1.02
IW-ST-00105	<0.00745	<0.00595	<0.057	<0.352	<0.458	<0.384	<0.029	<0.484	<0.056	<0.023	<0.19	<0.053	73.6	1.41
IW-ST-00106	<0.00716	<0.00572	<0.056	<0.345	<0.449	<0.377	<0.029	<0.475	<0.056	<0.023	<0.19	<0.053	75.3	0.72
IW-ST-00107	<0.00738	<0.00589	<0.058	<0.036	<0.046	<0.039	<0.029	<0.049	<0.058	<0.023	<0.19	<0.053	77.1	2.87
IW-ST-00108	<0.00723	<0.00578	<0.058	<0.036	<0.046	<0.039	<0.029	<0.049	<0.058	<0.023	<0.19	<0.053	75.1	0.79
IW-ST-00109	0.016 J	<0.00595	<0.057	<0.176	<0.229	<0.192	<0.029	<0.242	<0.056	<0.023	<0.19	<0.053	75	0.49

TABLE 5 - FISH TISSUE DATA

Sample ID	4,4'-DDE (mg/kg)	4,4'-DDT (mg/kg)	Benzo(a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo(b) fluoranthene (mg/kg)	Benzo(k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenz(a,h) anthracene (mg/kg)	Hexachloro benzene (mg/kg)	Indeno(1,2,3- cd)pyrene (mg/kg)	Lead (mg/kg)	Silver (mg/kg)	% Moisture	% Lipids
DUPLICATES														
IW-BC-00405 (DUP)	0.011	<0.00578	<0.057	<0.035	<0.045	<0.038	<0.029	<0.048	<0.056	<0.023	<0.19	0.067 J	80.7	0.02
IW-SF-00302 (DUP)	<0.00723	<0.00578	<0.056	<0.035	0.049 J	<0.038	<0.029	<0.047	<0.056	<0.023	<0.19	<0.053	79.2	0.07
IW-ST-00105 (DUP)	<0.00723	<0.00578	<0.058	<0.359	<0.467	<0.392	<0.03	<0.494	<0.058	<0.024	0.24 J	<0.053	72.1	0.36

Notes:

1. Data Qualifier: J = estimated value.
2. All concentrations reported on a wet weight basis.

TABLE 6 - EXTENT EVALUATION COMPARISON VALUES - WESTERN EXTENT OF SOUTH AREA SOILS⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 16 of RI/FS Work Plan ⁽²⁾								Potential Background Values		Extent Evaluation Comparison Value
	EPA Region 6 Soil Screening Criteria ⁽³⁾	TotSoilComb ⁽⁴⁾	GWSoilClass3 ⁽⁵⁾	AirSoilInh-V ⁽⁶⁾	AirGWSoilInh-V ⁽⁷⁾	EPA Ecological Soil Screening Level ⁽⁸⁾	TCEQ Ecological Benchmark ⁽⁹⁾	PSV	TCEQ ⁽¹¹⁾	Site-Specific ⁽¹²⁾	
METALS											
Aluminum	7.6E+04	6.4E+04 ⁽¹³⁾	1E+06 ⁽¹³⁾	---	---	---	---	6.4E+04	3.0E+04	---	6.4E+04
Antimony	3.1E+01	1.5E+01	2.7E+02	---	---	2.7E-01 ***	5.0E+00 +	2.7E-01	1.0E+00	---	1.0E+00
Arsenic	3.9E-01	2.4E+01	2.5E+02	---	---	1.8E+01	1.8E+01 +	3.9E-01	5.9E+00	8.7E+00	8.7E+00
Barium	5.5E+03	7.8E+03 ⁽¹³⁾	2.2E+04	---	---	3.3E+02 *	3.3E+02	3.3E+02	3.0E+02	4.6E+02	4.6E+02
Beryllium	1.5E+02	3.8E+01	9.2E+01	---	---	2.1E+01 ***	1.0E+01 +	1.0E+01	1.5E+00	---	1.0E+01
Boron	1.6E+04	1.6E+04	---	---	---	---	5.0E-01 +	5.0E-01	3.0E+01	---	3.0E+01
Cadmium	3.9E+01	5.2E+01	7.5E+01	---	---	3.6E-01 ***	3.2E+01 +	3.6E-01	---	---	3.6E-01
Chromium	---	2.3E+04	1.2E+05	---	---	---	4.0E-01	4.0E-01	3.0E+01	2.4E+01	3.0E+01
Chromium (VI)	3.0E+01	1.2E+02	1.4E+03	---	---	8.1E+01 ***	---	3.0E+01	---	---	3.0E+01
Cobalt	9.0E+02	3.8E+03 ⁽¹³⁾	6.6E+04 ⁽¹³⁾	---	---	1.3E+01	1.3E+01 +	1.3E+01	7.0E+00	---	1.3E+01
Copper	2.9E+03	5.5E+02	5.2E+04	---	---	---	6.1E+01	6.1E+01	1.5E+01	2.4E+01	6.1E+01
Iron	5.3E+04 ⁽¹⁴⁾	---	---	---	---	---	---	5.3E+04 ⁽¹⁴⁾	1.5E+04	---	5.3E+04
Lead	4.0E+02	5.0E+02	1.5E+02	---	---	1.1E+01 **	1.2E+02 +	1.1E+01	1.5E+01	1.8E+01	1.8E+01
Lithium	1.6E+03	1.3E+03	---	---	---	---	2.0E+00 +	2.0E+00	---	3.6E+01	3.6E+01
Manganese	3.2E+03	3.4E+03	5.8E+04	---	---	---	5.0E+02 +	5.0E+02	3.0E+02	6.5E+02	6.5E+02
Mercury	2.3E+01	2.1E+00	3.9E-01	2.4E+00	1.8E+00	---	1.0E-01	1.0E-01	4.0E-02	3.5E-02	1.0E-01
Molybdenum	3.9E+02	1.6E+02	2.5E+03	---	---	---	2.0E+00 +	2.0E+00	---	7.4E-01	2.0E+00
Nickel	1.6E+03	8.3E+02	7.9E+03	---	---	---	3.0E+01 +	3.0E+01	1.0E+01	---	3.0E+01
Selenium	3.9E+02	3.1E+02	1.1E+02	---	---	---	1.0E+00 +	1.0E+00	3.0E-01	---	1.0E+00
Silver	3.9E+02	9.5E+01	2.4E+01	---	---	---	2.0E+00 +	2.0E+00	---	---	2.0E+00
Strontium	4.7E+04	4.4E+04	3.1E+04	---	---	---	---	3.1E+04	1.0E+02	---	3.1E+04
Thallium	---	6.3E+00	8.7E+01	---	---	---	1.0E+00 +	1.0E+00	9.3E+00	---	9.3E+00
Tin	---	3.5E+04	1.0E+06	---	---	---	5.0E+01 +	5.0E+01	9.0E-01	---	5.0E+01
Titanium	---	1.0E+06	---	---	---	---	---	1.0E+06	2.0E+03	---	1.0E+06
Vanadium	7.8E+01	2.9E+02	1.7E+05	---	---	7.8E+00 **	2.0E+00 +	2.0E+00	5.0E+01	---	5.0E+01
Zinc	2.3E+04	9.9E+03	1.2E+05	---	---	---	1.2E+02	1.2E+02	3.0E+01	2.8E+02	2.8E+02
PESTICIDES											
4,4'-DDD	2.4E+00	1.4E+01	6.5E+02	---	---	---	---	2.4E+00	---	---	2.4E+00
4,4'-DDE	1.7E+00	1.0E+01	5.9E+02	---	---	---	---	1.7E+00	---	---	1.7E+00
4,4'-DDT	1.7E+00	5.4E+00	7.4E+02	6.2E+02	2.2E+05	---	---	1.7E+00	---	---	1.7E+00
Aldrin	2.9E-02	5.0E-02	5.1E+00	4.3E+00	5.5E+02	---	---	2.9E-02	---	---	2.9E-02
alpha-BHC	9.0E-02	2.5E-01	4.0E-01	7.2E+00	5.4E+02	---	---	9.0E-02	---	---	9.0E-02
beta-BHC	3.2E-01	9.2E-01 ⁽¹³⁾	1.4E+00 ⁽¹³⁾	3.7E+01 ⁽¹³⁾	4.2E+03 ⁽¹³⁾	---	---	3.2E-01	---	---	3.2E-01
alpha-Chlordane	---	1.3E+01 ⁽¹³⁾	3.7E+04 ⁽¹³⁾	2.1E+03 ⁽¹³⁾	1.0E+06 ⁽¹³⁾	---	---	1.3E+01 ⁽¹³⁾	---	---	1.3E+01 ⁽¹³⁾
delta-BHC	---	2.9E+00	8.7E+00	5.2E+01	8.0E+03	---	---	2.9E+00	---	---	2.9E+00
Dieldrin	3.0E-02	1.5E-01	2.4E+00	1.6E+01	7.0E+03	3.2E-05 ***	---	3.2E-05	---	---	3.2E-05
Endosulfan I	---	4.7E+01	1.5E+03	9.6E+01	3.7E+04	---	---	4.7E+01	---	---	4.7E+01
Endosulfan II	---	2.7E+02	4.6E+03	---	---	---	---	2.7E+02	---	---	2.7E+02
Endosulfan sulfate	---	3.8E+02	2.3E+05	---	---	---	---	3.8E+02	---	---	3.8E+02

TABLE 6 - EXTENT EVALUATION COMPARISON VALUES - WESTERN EXTENT OF SOUTH AREA SOILS⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 16 of RI/FS Work Plan ⁽²⁾								Potential Background Values		Extent Evaluation Comparison Value
	EPA Region 6 Soil Screening Criteria ⁽³⁾	TotSoil _{Comb} ⁽⁴⁾	GW _{Soil} _{Class 3} ⁽⁵⁾	Air _{Soil} _{Inh-V} ⁽⁶⁾	Air _{GW} _{Soil} _{Inh-V} ⁽⁷⁾	EPA Ecological Soil Screening Level ⁽⁸⁾	TCEQ Ecological Benchmark ⁽⁹⁾	PSV	TCEQ ⁽¹¹⁾	Site-Specific ⁽¹²⁾	
Endrin	1.8E+01	8.7E+00	3.8E+01	2.4E+02	7.9E+04	---	---	8.7E+00	---	---	8.7E+00
Endrin aldehyde	---	1.9E+01	3.1E+04	---	---	---	---	1.9E+01	---	---	1.9E+01
Endrin ketone	---	1.9E+01	2.5E+03	9.7E+02	1.0E+06	---	---	1.9E+01	---	---	1.9E+01
gamma-BHC (Lindane)	4.4E-01	1.1E+00	4.6E-01	3.0E+02	2.5E+04	---	---	4.4E-01	---	---	4.4E-01
gamma-Chlordane	---	7.3E+00	2.1E+03	5.0E+02	1.6E+05	---	---	7.3E+00	---	---	7.3E+00
Heptachlor	1.1E-01	1.3E-01	9.4E+00	4.7E+00	1.9E+02	---	---	1.1E-01	---	---	1.1E-01
Heptachlor epoxide	5.3E-02	2.4E-01	2.9E+00	1.2E+01	2.2E+03	---	---	5.3E-02	---	---	5.3E-02
Methoxychlor	3.1E+02	2.7E+02	6.2E+03	1.6E+04	1.0E+06	---	---	2.7E+02	---	---	2.7E+02
Toxaphene	4.4E-01	1.2E+00	5.8E+02	4.9E+02	4.4E+05	---	---	4.4E-01	---	---	4.4E-01
PCBs	2.2E-01	1.1E+00	5.3E+02	2.8E+01	4.0E+03	---	---	2.2E-01	---	---	2.2E-01
Aroclor-1016	3.9E+00	---	---	---	---	---	---	3.9E+00	---	---	3.9E+00
Aroclor-1221	2.2E-01	---	---	---	---	---	---	2.2E-01	---	---	2.2E-01
Aroclor-1232	2.2E-01	---	---	---	---	---	---	2.2E-01	---	---	2.2E-01
Aroclor-1242	2.2E-01	---	---	---	---	---	---	2.2E-01	---	---	2.2E-01
Aroclor-1248	2.2E-01	---	---	---	---	---	---	2.2E-01	---	---	2.2E-01
Aroclor-1254	2.2E-01	---	---	---	---	---	---	2.2E-01	---	---	2.2E-01
Aroclor-1260	2.2E-01	---	---	---	---	---	---	2.2E-01	---	---	2.2E-01
VOCs											
1,1,1,2-Tetrachloroethane	3.0E+00	3.9E+01	7.1E+01	4.7E+01	2.9E+02	---	---	3.0E+00	---	---	3.0E+00
1,1,1-Trichloroethane	1.4E+03	3.2E+04 ⁽¹³⁾	8.1E+01	4.0E+04 ⁽¹³⁾	2.1E+04 ⁽¹³⁾	---	---	8.1E+01	---	---	8.1E+01
1,1,2,2-Tetrachloroethane	3.8E-01	4.0E+00	1.2E+00	4.6E+00	1.4E+01	---	---	3.8E-01	---	---	3.8E-01
1,1,2-Trichloroethane	8.4E-01	1.0E+01	1.0E+00	1.2E+01	2.1E+01	---	---	8.4E-01	---	---	8.4E-01
1,1-Dichloroethane	5.9E+02	6.5E+02	4.6E+01	3.2E+03	1.8E+03	---	---	4.6E+01	---	---	4.6E+01
1,1-Dichloroethene	2.8E+02	2.6E+03 ⁽¹³⁾	9.2E+02 ⁽¹³⁾	2.7E+03 ⁽¹³⁾	7.7E+02 ⁽¹³⁾	---	---	2.8E+02	---	---	2.8E+02
1,1-Dichloropropene	---	2.6E+01	6.7E+00	4.6E+01	1.8E+01	---	---	6.7E+00	---	---	6.7E+00
1,2,3-Trichloropropane	1.4E-03	8.7E-01	1.1E-01	1.4E+03	7.3E+03	---	---	1.4E-03	---	---	1.4E-03
1,2,4-Trichlorobenzene	6.8E+01	6.1E+02 ⁽¹³⁾	2.4E+02	7.8E+03 ⁽¹³⁾	6.9E+04 ⁽¹³⁾	---	2.0E+01	2.0E+01	---	---	2.0E+01
1,2,4-Trimethylbenzene	5.2E+01	8.0E+01 ⁽¹³⁾	2.4E+03	8.1E+01 ⁽¹³⁾	4.9E+02 ⁽¹³⁾	---	---	5.2E+01	---	---	5.2E+01
1,2-Dibromo-3-chloropropane	4.6E-01	3.18E+00 ⁽¹³⁾	8.7E-02	4.2E+00	1.8E+01	---	---	8.7E-02	---	---	8.7E-02
1,2-Dibromoethane	2.8E-02	4.3E-01 ⁽¹³⁾	1.0E-02	5.0E-01 ⁽¹³⁾	1.5E+00 ⁽¹³⁾	---	---	1.0E-02	---	---	1.0E-02
1,2-Dichlorobenzene	2.8E+02	3.9E+02	8.9E+02	4.1E+02	2.2E+03	---	---	2.8E+02	---	---	2.8E+02
1,2-Dichloroethane	3.5E-01	6.4E+00	6.9E-01	7.1E+00	5.9E+00	---	---	3.5E-01	---	---	3.5E-01
1,2-Dichloropropane	3.5E-01	3.1E+01	1.1E+00	3.2E+01	3.4E+01	---	7.0E+02	3.5E-01	---	---	3.5E-01
1,3,5-Trimethylbenzene	2.1E+01	5.9E+01	2.7E+03	6.0E+01	3.5E+02	---	---	2.1E+01	---	---	2.1E+01
1,3-Dichlorobenzene	9.3E+01	6.2E+01	3.4E+02	6.3E+01	1.1E+02	---	---	6.2E+01	---	---	6.2E+01
1,3-Dichloropropane	---	2.6E+01	3.2E+00	4.6E+01	1.2E+02	---	---	3.2E+00	---	---	3.2E+00
1,4-Dichlorobenzene	3.2E+00	2.5E+02	1.1E+02	9.1E+03	4.7E+04	---	2.0E+01	3.2E+00	---	---	3.2E+00
2,2-Dichloropropane	---	3.1E+01	6.0E+00	3.2E+01	3.3E+01	---	---	6.0E+00	---	---	6.0E+00
2-Butanone	3.2E+04	2.7E+04	1.5E+03	5.9E+04	3.5E+05	---	---	1.5E+03	---	---	1.5E+03
2-Chloroethylvinyl ether	---	2.3E+00	1.4E-01	2.4E+00	4.4E+00	---	---	1.4E-01	---	---	1.4E-01

TABLE 6 - EXTENT EVALUATION COMPARISON VALUES - WESTERN EXTENT OF SOUTH AREA SOILS⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 16 of RI/FS Work Plan ⁽²⁾								Potential Background Values		Extent Evaluation Comparison Value
	EPA Region 6 Soil Screening Criteria ⁽³⁾	^{Tot} Soil _{Comb} ⁽⁴⁾	^{GW} Soil _{Class 3} ⁽⁵⁾	^{Air} Soil _{Inh-V} ⁽⁶⁾	^{Air} GW Soil _{Inh-V} ⁽⁷⁾	EPA Ecological Soil Screening Level ⁽⁸⁾	TCEQ Ecological Benchmark ⁽⁹⁾	PSV	TCEQ ⁽¹¹⁾	Site-Specific ⁽¹²⁾	
2-Chlorotoluene	1.6E+02	8.3E+02	4.5E+02	2.2E+03	9.2E+03	---	---	1.6E+02	---	---	1.6E+02
2-Hexanone	---	5.6E+01	1.9E+02	5.7E+01	2.6E+02	---	---	5.6E+01	---	---	5.6E+01
4-Chlorotoluene	---	2.5E+00	1.9E+03 ⁽¹³⁾	2.5E+00	1.1E+01	---	---	2.5E+00	---	---	2.5E+00
4-Isopropyltoluene	---	2.5E+03	1.2E+04	3.5E+03	2.8E+04	---	---	2.5E+03	---	---	2.5E+03
4-Methyl-2-pentanone	5.8E+03	5.4E+03	2.5E+02	3.0E+04	1.1E+05	---	---	2.5E+02	---	---	2.5E+02
Acetone	7.0E+04	5.4E+03	2.1E+03	5.8E+03	3.2E+04	---	---	2.1E+03	---	---	2.1E+03
Acrolein	1.0E-01	5.7E-01	1.2E+00	5.8E-01	8.8E+00	---	---	1.0E-01	---	---	1.0E-01
Acrylonitrile	2.1E-01	2.2E+00	1.7E-01	2.7E+00	7.4E+00	---	---	1.7E-01	---	---	1.7E-01
Benzene	6.6E-01	4.8E+01 ⁽¹³⁾	1.3E+00	8.4E+01 ⁽¹³⁾	6.0E+01 ⁽¹³⁾	---	---	6.6E-01	---	---	6.6E-01
Bromobenzene	7.3E+01	7.9E+01 ⁽¹³⁾	2.9E+02	8.3E+01 ⁽¹³⁾	2.9E+02 ⁽¹³⁾	---	---	7.3E+01	---	---	7.3E+01
Bromodichloromethane	1.0E+00	9.8E+01	3.3E+00	---	---	---	---	1.0E+00	---	---	1.0E+00
Bromoform	6.2E+01	2.8E+02	3.2E+01	4.3E+02	1.8E+03	---	---	3.2E+01	---	---	3.2E+01
Bromomethane	3.9E+00	2.9E+01	6.5E+00	3.9E+01	1.1E+01	---	---	3.9E+00	---	---	3.9E+00
Butanol	6.1E+03	1.8E+03	2.6E+02	2.3E+03	2.7E+04	---	---	2.6E+02	---	---	2.6E+02
Carbon disulfide	7.2E+02	3.3E+03	6.8E+02	5.5E+03	1.7E+03	---	---	6.8E+02	---	---	6.8E+02
Carbon tetrachloride	2.4E-01	9.7E+00	3.1E+00	1.2E+01	6.3E+00	---	---	2.4E-01	---	---	2.4E-01
Chlorobenzene	3.2E+02	3.2E+02 ⁽¹³⁾	5.5E+01	4.0E+02 ⁽¹³⁾	8.2E+02 ⁽¹³⁾	---	4.0E+01	4.0E+01	---	---	4.0E+01
Chloroethane	3.0E+00	2.3E+04	1.5E+03	7.9E+04	2.4E+04	---	---	3.0E+00	---	---	3.0E+00
Chloroform	2.5E-01	8.0E+00	5.1E+01	8.0E+00	5.4E+00	---	---	2.5E-01	---	---	2.5E-01
Chloromethane	1.3E+00	8.4E+01	2.0E+01	1.0E+02	1.4E+01	---	---	1.3E+00	---	---	1.3E+00
cis-1,2-Dichloroethene	4.3E+01	7.2E+02	1.2E+01	6.3E+03	3.7E+03	---	---	1.2E+01	---	---	1.2E+01
cis-1,3-Dichloropropene	---	7.1E+00	3.3E-01	5.3E+01	5.9E+01	---	---	3.3E-01	---	---	3.3E-01
Dibromochloromethane	1.0E+00	7.2E+01	2.5E+00	---	---	---	---	1.0E+00	---	---	1.0E+00
Dibromomethane	1.4E+02	1.4E+02	5.6E+01	1.4E+02	4.7E+02	---	---	5.6E+01	---	---	5.6E+01
Dichlorodifluoromethane	9.4E+01	1.2E+04	1.2E+04	3.9E+04	9.4E+03	---	---	9.4E+01	---	---	9.4E+01
Ethylbenzene	2.3E+02	4.0E+03	3.8E+02	7.9E+03	1.1E+04	---	---	2.3E+02	---	---	2.3E+02
Hexachlorobutadiene	6.2E+00	1.2E+01	1.6E+02 ⁽¹³⁾	1.5E+01	1.6E+02	---	---	6.2E+00	---	---	6.2E+00
Isopropylbenzene (Cumene)	3.7E+02	3.0E+03	1.7E+04	4.8E+03	4.0E+04	---	---	3.7E+02	---	---	3.7E+02
Methyl acetate	2.2E+04	4.5E+03	2.4E+03	4.7E+03	1.7E+04	---	---	2.4E+03	---	---	2.4E+03
Methyl iodide	---	5.2E+01	5.7E+00	9.5E+01	3.6E+01	---	---	5.7E+00	---	---	5.7E+00
Methylcyclohexane	1.4E+02	2.2E+04	7.8E+05	2.4E+04	1.2E+04	---	---	1.4E+02	---	---	1.4E+02
Methylene chloride	8.9E+00	2.6E+02	6.5E-01	3.9E+02	2.2E+02	---	---	6.5E-01	---	---	6.5E-01
Naphthalene	1.2E+02	1.2E+02	1.6E+03	1.4E+02	1.3E+03	---	---	1.2E+02	---	---	1.2E+02
n-Butylbenzene	1.4E+02	1.5E+03	6.1E+03	3.4E+03	2.9E+04	---	---	1.4E+02	---	---	1.4E+02
n-Propylbenzene	1.4E+02	1.6E+03	2.2E+03	3.3E+03	1.8E+04	---	---	1.4E+02	---	---	1.4E+02
o-Xylene	2.8E+02	5.6E+03 ⁽¹³⁾	3.5E+03	5.8E+03 ⁽¹³⁾	5.7E+04 ⁽¹³⁾	---	---	2.8E+02	---	---	2.8E+02
sec-Butylbenzene	1.1E+02	1.6E+03	4.2E+03	2.9E+03	2.2E+04	---	---	1.1E+02	---	---	1.1E+02
Styrene	1.7E+03	7.0E+03	1.6E+02	1.2E+04	6.8E+04	---	3.0E+02 +	1.6E+02	---	---	1.6E+02
tert-Butyl methyl ether (MTBE)	1.7E+01	5.9E+02	3.1E+01	7.1E+02	6.6E+02	---	---	1.7E+01	---	---	1.7E+01
tert-Butylbenzene	1.3E+02	1.4E+03	5.0E+03	2.4E+03	1.6E+04	---	---	1.3E+02	---	---	1.3E+02

TABLE 6 - EXTENT EVALUATION COMPARISON VALUES - WESTERN EXTENT OF SOUTH AREA SOILS⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 16 of RI/FS Work Plan ⁽²⁾								Potential Background Values		Extent Evaluation Comparison Value
	EPA Region 6 Soil Screening Criteria ⁽³⁾	TotSoil _{Comb} ⁽⁴⁾	GW _{Soil} _{Class 3} ⁽⁵⁾	Air _{Soil} _{Inh-V} ⁽⁶⁾	Air _{GW} _{Soil} _{Inh-V} ⁽⁷⁾	EPA Ecological Soil Screening Level ⁽⁸⁾	TCEQ Ecological Benchmark ⁽⁹⁾	PSV	TCEQ ⁽¹¹⁾	Site-Specific ⁽¹²⁾	
Tetrachloroethene	5.5E-01	8.5E+01	2.5E+00	3.2E+02	2.1E+02	---	---	5.5E-01	---	---	5.5E-01
Toluene	5.2E+02	5.6E+03 ⁽¹³⁾	4.1E+02	4.0E+04 ⁽¹³⁾	4.1E+04 ⁽¹³⁾	---	2.0E+02 +	2.0E+02	---	---	2.0E+02
trans-1,2-Dichloroethene	6.3E+01	3.7E+02 ⁽¹³⁾	2.5E+01	4.7E+02 ⁽¹³⁾	2.4E+02 ⁽¹³⁾	---	---	2.5E+01	---	---	2.5E+01
trans-1,3-Dichloropropene	---	2.6E+01	1.8E+00	4.6E+01	4.8E+01	---	---	1.8E+00	---	---	1.8E+00
trans-1,4-Dichloro-2-butene	---	1.7E-01	---	1.7E-01	6.9E-01	---	---	1.7E-01	---	---	1.7E-01
Trichloroethene	4.3E-02	9.1E+01	1.7E+00	1.1E+02	7.1E+01	---	---	4.3E-02	---	---	4.3E-02
Trichlorofluoromethane	3.9E+02	1.2E+04	6.4E+03	2.2E+04	4.6E+03	---	---	3.9E+02	---	---	3.9E+02
Trichlorotrifluoroethane	5.6E+03	2.2E+05	1.0E+06	2.4E+05	6.5E+04	---	---	5.6E+03	---	---	5.6E+03
Vinyl acetate	4.3E+02	1.5E+03	2.7E+03	1.6E+03	2.0E+03	---	---	4.3E+02	---	---	4.3E+02
Vinyl chloride	4.3E-02	3.4E+00	1.1E+00	2.1E+01	2.6E+00	---	---	4.3E-02	---	---	4.3E-02
Xylene (total)	2.1E+02	7.5E+02	6.1E+03	7.9E+02	1.3E+03	---	---	2.1E+02	---	---	2.1E+02
SVOCs											
1,2-Diphenylhydrazine/Azobenzen	6.1E-01	3.6E+01 ⁽¹³⁾	8.8E+02 ⁽¹³⁾	7.1E+02 ⁽¹³⁾	9.4E+04 ⁽¹³⁾	---	---	6.1E-01	---	---	6.1E-01
2,4,5-Trichlorophenol	6.1E+03	4.1E+03	1.7E+03	1.1E+04	4.1E+05	---	4.0E+00 +	4.0E+00	---	---	4.0E+00
2,4,6-Trichlorophenol	4.4E+01	6.7E+01 ⁽¹³⁾	8.8E+00 ⁽¹³⁾	1.0E+03	2.3E+04	---	1.0E+01	8.8E+00	---	---	8.8E+00
2,4-Dichlorophenol	1.8E+02	1.9E+02	1.8E+01	6.8E+03	1.7E+05	---	---	1.8E+01	---	---	1.8E+01
2,4-Dimethylphenol	1.2E+03	8.8E+02	1.6E+02	2.6E+03	7.0E+04	---	---	1.6E+02	---	---	1.6E+02
2,4-Dinitrophenol	1.2E+02	1.3E+02	4.7E+00	---	---	---	2.0E+01 +	4.7E+00	---	---	4.7E+00
2,4-Dinitrotoluene	1.2E+02	6.9E+00	2.7E-01	1.5E+01	3.1E+02	---	---	2.7E-01	---	---	2.7E-01
2,6-Dinitrotoluene	6.1E+01	6.9E+00	2.4E-01	2.2E+01	7.3E+02	---	---	2.4E-01	---	---	2.4E-01
2-Chloronaphthalene	3.9E+03	5.0E+03	3.3E+04	---	---	---	---	3.9E+03	---	---	3.9E+03
2-Chlorophenol	6.4E+01	3.6E+02	8.2E+01	3.2E+03	5.3E+04	---	---	6.4E+01	---	---	6.4E+01
2-Methylnaphthalene	---	2.5E+02	8.5E+02	---	---	---	---	2.5E+02	---	---	2.5E+02
2-Nitroaniline	1.8E+02	1.2E+01 ⁽¹³⁾	1.1E+01 ⁽¹³⁾	2.4E+01 ⁽¹³⁾	7.7E+02 ⁽¹³⁾	---	---	1.1E+01	---	---	1.1E+01
2-Nitrophenol	---	1.0E+02	6.7E+00	4.1E+02	1.2E+04	---	---	6.7E+00	---	---	6.7E+00
3,3'-Dichlorobenzidine	1.1E+00	1.0E+01	3.1E+00	---	---	---	---	1.1E+00	---	---	1.1E+00
3-Nitroaniline	---	1.9E+01	1.3E+00	4.6E+02	1.6E+04	---	---	1.3E+00	---	---	1.3E+00
4,6-Dinitro-2-methylphenol	---	5.2E+00 ⁽¹³⁾	2.3E-01 ⁽¹³⁾	2.4E+01	1.0E+03	---	---	2.3E-01	---	---	2.3E-01
4-Bromophenyl phenyl ether	---	2.7E-01	1.8E+01	5.0E+00	5.9E+02	---	---	2.7E-01	---	---	2.7E-01
4-Chloro-3-methylphenol	---	3.3E+02	2.3E+02	1.8E+04	1.0E+06	---	---	2.3E+02	---	---	2.3E+02
4-Chloroaniline	2.4E+02	2.0E+02	2.2E+01	7.4E+02	2.0E+04	---	---	2.2E+01	---	---	2.2E+01
4-Chlorophenyl phenyl ether	---	1.5E-01	1.6E+00	1.3E+00	4.2E+01	---	---	1.5E-01	---	---	1.5E-01
4-Nitroaniline	---	1.2E+02 ⁽¹³⁾	2.8E+00 ⁽¹³⁾	3.1E+02 ⁽¹³⁾	1.1E+04 ⁽¹³⁾	---	---	2.8E+00 ⁽¹³⁾	---	---	2.8E+00 ⁽¹³⁾
4-Nitrophenol	4.9E+02	5.1E+01	5.0E+00	8.3E+01	3.1E+03	---	7.0E+00	5.0E+00	---	---	5.0E+00
Acenaphthene	3.7E+03	3.0E+03	1.2E+04	---	---	---	2.0E+01 +	2.0E+01	---	---	2.0E+01
Acenaphthylene	---	3.8E+03	2.0E+04	---	---	---	---	3.8E+03	---	---	3.8E+03
Acetophenone	1.7E+03	1.8E+03	4.1E+02	2.5E+03	3.0E+04	---	---	4.1E+02	---	---	4.1E+02
Aniline	8.5E+01	5.9E+01	1.8E+01	6.7E+01	1.6E+03	---	---	1.8E+01	---	---	1.8E+01
Anthracene	2.2E+04	1.8E+04	3.4E+05	---	---	---	---	1.8E+04	---	---	1.8E+04
Atrazine (Aatrex)	2.2E+00	2.1E+01	1.2E+00	1.7E+03	9.8E+04	---	---	1.2E+00	---	---	1.2E+00

TABLE 6 - EXTENT EVALUATION COMPARISON VALUES - WESTERN EXTENT OF SOUTH AREA SOILS⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 16 of RI/FS Work Plan ⁽²⁾								Potential Background Values		Extent Evaluation Comparison Value
	EPA Region 6 Soil Screening Criteria ⁽³⁾	T _{ot} Soil _{Comb} ⁽⁴⁾	G _W Soil _{Class 3} ⁽⁵⁾	Air _{Soil} Inh-V ⁽⁶⁾	Air _{GW} Soil _{Inh-V} ⁽⁷⁾	EPA Ecological Soil Screening Level ⁽⁸⁾	TCEQ Ecological Benchmark ⁽⁹⁾	PSV	TCEQ ⁽¹¹⁾	Site-Specific ⁽¹²⁾	
Benzaldehyde	6.1E+03	2.4E+02	5.3E+02	2.5E+02	1.4E+03	---	---	2.4E+02	---	---	2.4E+02
Benzidine	2.1E-03	1.3E-02	5.5E-04	3.2E-02	1.2E+00	---	---	5.5E-04	---	---	5.5E-04
Benzo(a)anthracene	6.2E-01	5.6E+00	8.9E+02	1.9E+03	1.0E+06	---	---	6.2E-01	---	---	6.2E-01
Benzo(a)pyrene	6.2E-02	5.6E-01	3.8E+02	4.4E+02	9.6E+05	---	---	6.2E-02	---	---	6.2E-02
Benzo(b)fluoranthene	6.2E-01	5.7E+00	3.0E+03	3.2E+03	1.0E+06	---	---	6.2E-01	---	---	6.2E-01
Benzo(g,h,i)perylene	---	1.8E+03	1.0E+06	---	---	---	---	1.8E+03	---	---	1.8E+03
Benzo(k)fluoranthene	6.2E+00	5.7E+01	3.1E+04	7.8E+04	1.0E+06	---	---	6.2E+00	---	---	6.2E+00
Benzoic acid	1.0E+05	3.5E+02	9.5E+03	3.5E+02	1.3E+04	---	---	3.5E+02	---	---	3.5E+02
Benzyl alcohol	1.8E+04	4.0E+03 ⁽¹³⁾	1.5E+03 ⁽¹³⁾	4.6E+03	1.4E+05	---	---	1.5E+03 ⁽¹³⁾	---	---	1.5E+03 ⁽¹³⁾
Biphenyl	3.0E+03	1.3E+02	1.3E+04	1.4E+02	2.7E+03	---	6.0E+01 +	6.0E+01	---	---	6.0E+01
Bis(2-Chloroethoxy)methane	---	2.5E+00	5.9E-01	5.8E+00	7.4E+01	---	---	5.9E-01	---	---	5.9E-01
Bis(2-Chloroethyl)ether	2.1E-01	1.4E+00	1.1E-01	1.8E+00	1.5E+01	---	---	1.1E-01	---	---	1.1E-01
Bis(2-Chloroisopropyl)ether	---	4.1E+01	9.5E+00	1.1E+02	8.2E+02	---	---	9.5E+00	---	---	9.5E+00
Bis(2-Ethylhexyl)phthalate	3.5E-01	4.3E+01	8.2E+03	---	---	---	---	3.5E-01	---	---	3.5E-01
Butyl benzyl phthalate	2.4E+02	5.7E+03	1.3E+05	1.3E+04	1.0E+06	---	---	2.4E+02	---	---	2.4E+02
Caprolactam	3.1E+04	1.7E+02	2.3E+03	1.7E+02	6.1E+03	---	---	1.7E+02	---	---	1.7E+02
Carbazole	2.4E+01	2.3E+02	2.3E+02	---	---	---	---	2.4E+01	---	---	2.4E+01
Chrysene	6.2E+01	5.6E+02	7.7E+04	3.0E+05	1.0E+06	---	---	6.2E+01	---	---	6.2E+01
Dibenz(a,h)anthracene	6.2E-02	5.5E-01	7.6E+02	1.0E+03	1.0E+06	---	---	6.2E-02	---	---	6.2E-02
Dibenzofuran	1.5E+02	2.7E+02	1.7E+03	---	---	---	---	1.5E+02	---	---	1.5E+02
Diethyl phthalate	4.9E+04	1.4E+03	7.8E+03	1.5E+03	7.0E+04	---	1.0E+02 +	1.0E+02	---	---	1.0E+02
Dimethyl phthalate	1.0E+05	6.6E+02	3.1E+03	6.7E+02	2.2E+04	---	2.0E+02	2.0E+02	---	---	2.0E+02
Di-n-butyl phthalate	6.1E+03	4.4E+03	1.7E+05	1.5E+04	1.0E+06	---	2.0E+02 +	2.0E+02	---	---	2.0E+02
Di-n-octyl phthalate	2.4E+03	1.3E+03 ⁽¹³⁾	1.0E+06	2.8E+05 ⁽¹³⁾	1.0E+06 ⁽¹³⁾	---	---	1.3E+03 ⁽¹³⁾	---	---	1.3E+03 ⁽¹³⁾
Fluoranthene	2.3E+03	2.3E+03	9.6E+04	---	---	---	---	2.3E+03	---	---	2.3E+03
Fluorene	2.6E+03	2.3E+03	1.5E+04	---	---	---	3.0E+01	3.0E+01	---	---	3.0E+01
Hexachlorobenzene	3.0E-01	1.0E+00	5.6E+01	9.8E+00	4.2E+02	---	---	3.0E-01	---	---	3.0E-01
Hexachlorocyclopentadiene	3.7E+02	7.2E+00	9.6E+02	7.3E+00	1.4E+02	---	1.0E+01 +	7.2E+00	---	---	7.2E+00
Hexachloroethane	3.5E+01	6.7E+01	9.2E+01	5.0E+02	6.9E+03	---	---	3.5E+01	---	---	3.5E+01
Indeno(1,2,3-cd)pyrene	6.2E-01	5.7E+00	8.7E+03	1.3E+04	1.0E+06	---	---	6.2E-01	---	---	6.2E-01
Isophorone	5.1E+02	1.2E+03	1.5E+02	1.4E+03	2.1E+04	---	---	1.5E+02	---	---	1.5E+02
Nitrobenzene	2.0E+01	3.0E+01	4.4E+00	2.9E+02	2.9E+03	---	4.0E+01	4.4E+00	---	---	4.4E+00
n-Nitrosodimethylamine	9.5E-03	1.9E-02 ⁽¹³⁾	6.2E-04 ⁽¹³⁾	3.4E-02 ⁽¹³⁾	9.7E-01 ⁽¹³⁾	---	---	6.2E-04	---	---	6.2E-04
n-Nitrosodi-n-propylamine	7.0E-02	4.0E-01	1.8E-02	---	---	---	---	1.8E-02	---	---	1.8E-02
n-Nitrosodiphenylamine	9.9E+01	5.7E+02	1.4E+02	---	---	---	2.0E+01	2.0E+01	---	---	2.0E+01
o-Cresol	3.1E+03	1.0E+03	3.6E+02	1.5E+03	3.8E+04	---	---	3.6E+02	---	---	3.6E+02
Pentachlorophenol	3.0E+00	2.4E+00	9.2E-01	2.3E+02	1.6E+04	1.8E-03 **	5.0E+00 +	1.8E-03	---	---	1.8E-03
Phenanthrene	---	1.7E+03	2.1E+04	---	---	---	---	1.7E+03	---	---	1.7E+03
Phenol	1.8E+04	1.6E+03	9.6E+02	1.7E+03	4.7E+04	---	3.0E+01	3.0E+01	---	---	3.0E+01
Pyrene	2.3E+03	1.7E+03	5.6E+04	---	---	---	---	1.7E+03	---	---	1.7E+03
Pyridine	6.1E+01	4.8E+01	3.5E+00	1.2E+02	4.1E+01	---	---	3.5E+00	---	---	3.5E+00

TABLE 6 - EXTENT EVALUATION COMPARISON VALUES - WESTERN EXTENT OF SOUTH AREA SOILS⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 16 of RI/FS Work Plan ⁽²⁾							Potential Background Values		Extent Evaluation Comparison Value	
	EPA Region 6 Soil Screening Criteria ⁽³⁾	TotSoilComb ⁽⁴⁾	GWSoilClass3 ⁽⁵⁾	AirSoilInh-V ⁽⁶⁾	AirGWSoilInh-V ⁽⁷⁾	EPA Ecological Soil Screening Level ⁽⁸⁾	TCEQ Ecological Benchmark ⁽⁹⁾	PSV	TCEQ ⁽¹¹⁾		Site-Specific ⁽¹²⁾
Sulfate	---	---	---	---	---	---	---	NV	---	---	NV
Chloride	---	---	---	---	---	---	---	NV	---	---	NV

Notes:

1. All values in mg/kg.
2. Values from Table 16 of RI/FS Work Plan (updated to reflect changes in toxicity data since 2005 where applicable).
3. From EPA's "Region 6 Human Health Medium-Specific Screening Levels 2004-2005". Residential Value.
4. TotSoilComb PCL = TCEQ Protective Concentration Level for 30 acre source area Residential total soil combined pathway (includes inhalation; ingestion; dermal pathways).
5. GWSoilClass3 PCL = TCEQ Protective Concentration Level for 30 acre source area Residential soil-to-groundwater leaching for Class 3 groundwater pathway.
6. AirSoilInh-V PCL = TCEQ Protective Concentration Level for 30 acre source area Residential soil-to-air pathway (inhalation of volatiles and particulates).
7. AirGW-SoilInh-V PCL = TCEQ Protective Concentration Level for 30 acre source area Residential soil and groundwater-to-air pathway (inhalation of volatiles and particulates).
8. From EPA's "Ecological Soil Screening Level". Values indicated with "*" are based on soil invertebrates. Values indicated with "**" are based on avian wildlife. Values indicated with "***" are based on mammalian wildlife. All other values are based on plants.
9. From Table 3-4 of TCEQ "Guidance for Conducting Ecological Risk Assessments at Remediation Sites in Texas". Values indicated with "+" are based on plant exposure. All other values are based on earthworm exposure.
10. NV = No Preliminary Screening Value.
11. From 30 TAC 350.51(m)
12. 95% UTL calculated from site-specific background samples.
13. Updated from Table 16 of RI/FS Workplan to reflect changes in toxicity data from 2005 to 2008 indicated in TCEQ PCL tables.
14. Updated from Table 16 of RI/FS Workplan to reflect revised reference dose for iron.

**TABLE 7 - DETECTED SOIL CONCENTRATIONS EXCEEDING EXTENT EVALUATION COMPARISON VALUES -
WESTERN EXTENT OF SOUTH AREA**

Sample Location	Sample Depth (ft)	Chemical of Interest	Concentration (mg/kg)	Extent Evaluation Comparison Value ⁽¹⁾ (mg/kg)
PHASE I SAMPLES				
SA1SB15	0-0.5	Benzo(a)anthracene	2.28J	0.62
		Benzo(a)pyrene	3.6J	0.062
		Benzo(b)fluoranthene	2.27J	0.62
		Copper	105	61
		Dibenz(a,h)anthracene	0.313	0.062
		Indeno(1,2,3-cd)pyrene	1.39J	0.62
		Lead	208	17.93
		Zinc	877	280
	1-2	Benzo(a)anthracene	4.21J	0.62
		Benzo(a)pyrene	4.88J	0.062
		Benzo(b)fluoranthene	5.34J	0.62
		Copper	73.2	61
		Dibenz(a,h)anthracene	0.817	0.062
		Indeno(1,2,3-cd)pyrene	4.37J	0.62
		Lead	395	17.93
		Zinc	1090	280

**TABLE 7 - DETECTED SOIL CONCENTRATIONS EXCEEDING EXTENT EVALUATION COMPARISON VALUES -
WESTERN EXTENT OF SOUTH AREA**

Sample Location	Sample Depth (ft)	Chemical of Interest	Concentration (mg/kg)	Extent Evaluation Comparison Value ⁽¹⁾ (mg/kg)
SA2SB16	0-0.5	Benzo(a)anthracene	1.29J	0.62
		Benzo(a)pyrene	1.95J	0.062
		Benzo(b)fluoranthene	2.05J	0.62
		Chromium	40.6	30
		Dibenz(a,h)anthracene	0.347	0.062
		Indeno(1,2,3-cd)pyrene	1.44J	0.62
		Lead	45.8	17.93
	1-2	Aroclor-1254	3.42	0.22
		Benzo(a)anthracene	1.71J	0.62
		Benzo(a)pyrene	2.13J	0.062
		Benzo(b)fluoranthene	2.76J	0.62
		Chromium	45.6	30
		Copper	128	61
		Dibenz(a,h)anthracene	0.322	0.062
Indeno(1,2,3-cd)pyrene	1.31J	0.62		
Lead	702	17.93		
Molybdenum	10.4	2		
Zinc	525	280		

**TABLE 7 - DETECTED SOIL CONCENTRATIONS EXCEEDING EXTENT EVALUATION COMPARISON VALUES -
WESTERN EXTENT OF SOUTH AREA**

Sample Location	Sample Depth (ft)	Chemical of Interest	Concentration (mg/kg)	Extent Evaluation Comparison Value ⁽¹⁾ (mg/kg)
SA3SB17	0-0.5	Benzo(a)anthracene	2.41J	0.62
		Benzo(a)pyrene	3.41J	0.062
		Benzo(b)fluoranthene	4.66J	0.62
		Copper	207	61
		Dibenz(a,h)anthracene	0.465	0.062
		Indeno(1,2,3-cd)pyrene	1.47J	0.62
		Molybdenum	2.24	2
		Zinc	412	280
	1-2	Aroclor-1254	11.5	0.22
		Benzo(a)pyrene	0.608J	0.062
		Benzo(b)fluoranthene	0.835J	0.62
		Copper	487	61
		Dibenz(a,h)anthracene	0.177	0.062
		Lead	252	17.93
SA4SB18	0-0.5	Mercury	0.85	0.1
		Zinc	865	280
		Aroclor-1254	0.734J+	0.22
		Barium	540J	10
		Benzo(a)pyrene	0.329J	0.062
SA5SB19	0-0.5	Lead	146J	17.93
		Zinc	414	280
		Aroclor-1254	0.457	0.22
		Arsenic	11.5	8.66
		Benzo(a)pyrene	0.371J	0.062
		Lead	152J	17.93
SA6SB20	0-0.5	Molybdenum	2.69J-	2
		Zinc	412	280
		Dibenz(a,h)anthracene	0.132	0.062

**TABLE 7 - DETECTED SOIL CONCENTRATIONS EXCEEDING EXTENT EVALUATION COMPARISON VALUES -
WESTERN EXTENT OF SOUTH AREA**

Sample Location	Sample Depth (ft)	Chemical of Interest	Concentration (mg/kg)	Extent Evaluation Comparison Value ⁽¹⁾ (mg/kg)
PHASE 2 SAMPLES				
L20SB01	0-0.5	Benzo(a)pyrene	0.283	0.062
	1-2	Lead	19J	17.93
L20SB02	0-0.5	Lead	19.7J	17.93
L20SB04	0-0.5	Copper	73J	61
		Lead	116J	17.93
		Mercury	0.72	0.1
		Zinc	453J	280
L20SB05	0-0.5	Benzo(a)pyrene	0.759	0.062
		Lead	108J	17.93
		Zinc	781J	280
L20SB06	0-0.5	Aroclor-1254	0.836	0.22
		Benzo(a)pyrene	0.394	0.062
		Lead	290J	17.93
		Zinc	942J	280
L20SB07	0-0.5	Aroclor-1254	1.02	0.22
		Benzo(a)pyrene	0.776	0.062
		Dibenz(a,h)anthracene	0.235	0.062
		Lead	985J	17.93
		Zinc	6,510J	280

Notes:

(1) Extent Evaluation Comparison Values from Table 6.

(2) Data qualifiers: J = estimated value; J+ = estimated value, biased high; J- = estimated value, biased low.

TABLE 8 - EXTENT EVALUATION COMPARISON VALUES - EASTERN AND VERTICAL EXTENT IN SOIL⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 15 of RI/FS Work Plan ⁽²⁾					PSV	Potential Background Values		Extent Evaluation Comparison Value
	EPA Region 6 Soil Screening Criteria ⁽³⁾	TotSoil _{Comb} ⁽⁴⁾	CWSoil _{Class 3} ⁽⁵⁾	AirSoil _{Inh-V} ⁽⁶⁾	AirGWSoil _{Inh-V} ⁽⁷⁾		TCEQ ⁽⁹⁾	Site-Specific ⁽¹⁰⁾	
METALS									
Aluminum	1.0E+05	5.7E+05 ⁽¹¹⁾	1.0E+06	---	---	6.7E+04	3.0E+04	---	6.7E+04
Antimony	4.5E+02	3.1E+02	2.7E+02	---	---	2.7E+02	1.0E+00	---	2.7E+02
Arsenic	1.8E+00	2.0E+02	2.5E+02	---	---	1.8E+00	5.9E+00	8.7E+00	8.7E+00
Barium	7.9E+04	8.9E+04 ⁽¹¹⁾	2.2E+04	---	---	2.2E+04	3.0E+02	4.6E+02	2.2E+04
Beryllium	2.2E+03	2.5E+02	9.2E+01	---	---	9.2E+01	1.5E+00	---	9.2E+01
Boron	1.0E+05	1.9E+05	---	---	---	1.0E+05	3.0E+01	---	1.0E+05
Cadmium	5.6E+02	8.5E+02	7.5E+01	---	---	7.5E+01	---	---	7.5E+01
Chromium	5.0E+02	5.7E+04	1.2E+05	---	---	5.0E+02	3.0E+01	2.4E+01	5.0E+02
Chromium (VI)	7.1E+01	1.0E+03	1.4E+03	---	---	7.1E+01	---	---	7.1E+01
Cobalt	2.1E+03	7.3E+03 ⁽¹¹⁾	6.6E+04 ⁽¹¹⁾	---	---	2.1E+03	7.0E+00	---	2.1E+03
Copper	4.2E+04	3.7E+04	5.2E+04	---	---	3.7E+04	1.5E+01	2.4E+01	3.7E+04
Iron	1.0E+05	---	---	---	---	1.0E+05	1.5E+04	---	1.0E+05
Lead	8.0E+02	1.6E+03	1.5E+02	---	---	1.5E+02	1.5E+01	1.8E+01	1.5E+02
Lithium	2.3E+04	1.9E+04	---	---	---	1.9E+04	---	3.6E+01	1.9E+04
Manganese	3.5E+04	2.4E+04	5.1E+05	---	---	2.4E+04	3.0E+02	6.5E+02	2.4E+04
Mercury	3.4E+02	3.3E+00	3.9E-01	3.3E+00	2.6E+00	3.9E-01	4.0E-02	3.5E-02	3.9E-01
Molybdenum	5.7E+03	4.5E+03	7.3E+03	---	---	4.5E+03	---	7.4E-01	4.5E+03
Nickel	2.3E+04	7.9E+03	2.3E+04	---	---	7.9E+03	1.0E+01	---	7.9E+03
Selenium	5.7E+03	4.7E+03	1.1E+02	---	---	1.1E+02	3.0E-01	---	1.1E+02
Silver	5.7E+03	1.7E+03	7.1E+01	---	---	7.1E+01	---	---	7.1E+01
Strontium	1.0E+05	4.9E+05	9.2E+04	---	---	9.2E+04	1.0E+02	---	9.2E+04
Thallium	---	7.8E+01	8.7E+01	---	---	7.8E+01	9.3E+00	---	7.8E+01
Tin	---	4.0E+05	1.0E+06	---	---	4.0E+05	9.0E-01	---	4.0E+05
Titanium	---	1.0E+06	---	---	---	1.0E+06	2.0E+03	---	1.0E+06
Vanadium	1.1E+03	2.3E+03	5.1E+05	---	---	1.1E+03	5.0E+01	---	1.1E+03
Zinc	1.0E+05	2.5E+05	3.5E+05	---	---	1.0E+05	3.0E+01	2.8E+02	1.0E+05
PESTICIDES									
4,4'-DDD	1.1E+01	1.0E+02	1.5E+03	---	---	1.1E+01	---	---	1.1E+01
4,4'-DDE	7.8E+00	7.3E+01	1.3E+03	---	---	7.8E+00	---	---	7.8E+00
4,4'-DDT	7.8E+00	6.8E+01	1.7E+03	1.0E+03	3.7E+05	7.8E+00	---	---	7.8E+00
Aldrin	1.1E-01	9.7E-01	1.2E+01	7.2E+00	9.2E+02	1.1E-01	---	---	1.1E-01
alpha-BHC	4.0E-01	2.9E+00	8.9E-01	1.2E+01	9.1E+02	4.0E-01	---	---	4.0E-01
alpha-Chlordane	---	5.4E+01	8.3E+04	3.5E+03	1.0E+06	5.4E+01	---	---	5.4E+01
beta-BHC	1.4E+00	1.1E+01	3.2E+00	6.2E+01	7.1E+03	1.4E+00	---	---	1.4E+00
delta-BHC	---	1.2E+01	1.9E+01	8.8E+01	1.3E+04	1.2E+01	---	---	1.2E+01
Dieldrin	1.2E-01	1.1E+00	5.5E+00	2.7E+01	1.2E+04	1.2E-01	---	---	1.2E-01
Endosulfan I	---	1.2E+02	4.6E+03	1.3E+02	5.2E+04	1.2E+02	---	---	1.2E+02
Endosulfan II	---	4.1E+03	1.4E+04	---	---	4.1E+03	---	---	4.1E+03

TABLE 8 - EXTENT EVALUATION COMPARISON VALUES - EASTERN AND VERTICAL EXTENT IN SOIL⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 15 of RI/FS Work Plan ⁽²⁾					PSV	Potential Background Values		Extent Evaluation Comparison Value
	EPA Region 6 Soil Screening Criteria ⁽³⁾	Tot Soil _{Comb} ⁽⁴⁾	GW Soil _{Class 3} ⁽⁵⁾	Air Soil _{Inh-V} ⁽⁶⁾	Air GW Soil _{Inh-V} ⁽⁷⁾		TCEQ ⁽⁹⁾	Site-Specific ⁽¹⁰⁾	
Endosulfan sulfate	---	4.1E+03	7.0E+05	---	---	4.1E+03	---	---	4.1E+03
Endrin	2.1E+02	1.3E+02	3.8E+01	3.4E+02	1.1E+05	3.8E+01	---	---	3.8E+01
Endrin aldehyde	---	2.0E+02	9.4E+04	---	---	2.0E+02	---	---	2.0E+02
Endrin ketone	---	1.8E+02	7.6E+03	1.4E+03	1.0E+06	1.8E+02	---	---	1.8E+02
gamma-BHC (Lindane)	1.9E+00	1.8E+01	4.6E-01	4.2E+02	3.5E+04	4.6E-01	---	---	4.6E-01
gamma-Chlordane	---	5.1E+01	4.6E+03	8.4E+02	2.6E+05	5.1E+01	---	---	5.1E+01
Heptachlor	4.3E-01	2.8E+00	9.4E+00	7.9E+00	3.2E+02	4.3E-01	---	---	4.3E-01
Heptachlor epoxide	2.1E-01	1.9E+00	2.9E+00	2.1E+01	3.8E+03	2.1E-01	---	---	2.1E-01
Methoxychlor	3.4E+03	3.0E+03	6.2E+03	2.2E+04	1.0E+06	3.0E+03	---	---	3.0E+03
Toxaphene	1.7E+00	1.7E+01	5.8E+02	8.3E+02	7.5E+05	1.7E+00	---	---	1.7E+00
PCBs	---	7.1E+00	5.3E+02	4.7E+01	6.8E+03	7.1E+00	---	---	7.1E+00
Aroclor-1016	2.4E+01	---	---	---	---	2.4E+01	---	---	2.4E+01
Aroclor-1221	8.3E-01	---	---	---	---	8.3E-01	---	---	8.3E-01
Aroclor-1232	8.3E-01	---	---	---	---	8.3E-01	---	---	8.3E-01
Aroclor-1242	8.3E-01	---	---	---	---	8.3E-01	---	---	8.3E-01
Aroclor-1248	8.3E-01	---	---	---	---	8.3E-01	---	---	8.3E-01
Aroclor-1254	8.3E-01	---	---	---	---	8.3E-01	---	---	8.3E-01
Aroclor-1260	8.3E-01	---	---	---	---	8.3E-01	---	---	8.3E-01
VOCs									
1,1,1,2-Tetrachloroethane	7.6E+00	7.3E+01 ⁽¹¹⁾	1.6E+02 ⁽¹¹⁾	7.8E+01 ⁽¹¹⁾	4.9E+02 ⁽¹¹⁾	7.6E+00	---	---	7.6E+00
1,1,1-Trichloroethane	1.4E+03	5.4E+04 ⁽¹¹⁾	8.1E+01	5.5E+04 ⁽¹¹⁾	2.9E+04 ⁽¹¹⁾	8.1E+01	---	---	8.1E+01
1,1,2,2-Tetrachloroethane	9.7E-01	7.3E+00	2.6E+00	7.7E+00	2.4E+01	9.7E-01	---	---	9.7E-01
1,1,2-Trichloroethane	2.1E+00	1.9E+01	1.0E+00	1.9E+01	3.5E+01	1.0E+00	---	---	1.0E+00
1,1-Dichloroethane	2.3E+03	4.3E+03 ⁽¹¹⁾	2.8E+03 ⁽¹¹⁾	4.4E+03	2.5E+03	2.3E+03	---	---	2.3E+03
1,1-Dichloroethene	4.7E+02	3.5E+03 ⁽¹¹⁾	2.5E+00	3.8E+03 ⁽¹¹⁾	1.1E+03 ⁽¹¹⁾	2.5E+00	---	---	2.5E+00
1,1-Dichloropropene	---	6.1E+01	1.5E+01	7.7E+01	3.1E+01	1.5E+01	---	---	1.5E+01
1,2,3-Trichloropropane	3.4E-03	4.1E+00	2.6E-01	2.0E+03	1.0E+04	3.4E-03	---	---	3.4E-03
1,2,4-Trichlorobenzene	2.6E+02	4.2E+03 ⁽¹¹⁾	2.4E+02	1.1E+04 ⁽¹¹⁾	9.7E+04 ⁽¹¹⁾	2.4E+02	---	---	2.4E+02
1,2,4-Trimethylbenzene	1.9E+02	1.1E+02 ⁽¹¹⁾	7.2E+03	1.1E+02 ⁽¹¹⁾	6.8E+02 ⁽¹¹⁾	1.1E+02	---	---	1.1E+02
1,2-Dibromo-3-chloropropane	2.2E+00	5.6E+00 ⁽¹¹⁾	8.7E-02	5.8E+00	2.5E+01	8.7E-02	---	---	8.7E-02
1,2-Dibromoethane	7.0E-02	7.9E-01 ⁽¹¹⁾	1.0E-02	8.4E-01 ⁽¹¹⁾	2.5E+00 ⁽¹¹⁾	1.0E-02	---	---	1.0E-02
1,2-Dichlorobenzene	3.7E+02	5.7E+02	8.9E+02	5.7E+02	3.1E+03	3.7E+02	---	---	3.7E+02
1,2-Dichloroethane	8.4E-01	1.1E+01	6.9E-01	1.2E+01	9.8E+00	6.9E-01	---	---	6.9E-01
1,2-Dichloropropane	8.5E-01	4.4E+01	1.1E+00	4.4E+01	4.8E+01	8.5E-01	---	---	8.5E-01
1,3,5-Trimethylbenzene	7.8E+01	8.3E+01	7.9E+03	8.3E+01	5.0E+02	7.8E+01	---	---	7.8E+01
1,3-Dichlorobenzene	1.5E+02	8.8E+01	1.0E+03	8.8E+01	1.6E+02	8.8E+01	---	---	8.8E+01
1,3-Dichloropropane	---	6.1E+01	7.2E+00	7.7E+01	2.0E+02	7.2E+00	---	---	7.2E+00
1,4-Dichlorobenzene	8.1E+00	1.2E+03	1.1E+02	1.3E+04	6.6E+04	8.1E+00	---	---	8.1E+00

TABLE 8 - EXTENT EVALUATION COMPARISON VALUES - EASTERN AND VERTICAL EXTENT IN SOIL⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 15 of RI/FS Work Plan ⁽²⁾					PSV	Potential Background Values		Extent Evaluation Comparison Value
	EPA Region 6 Soil Screening Criteria ⁽³⁾	TotSoil _{Comb} ⁽⁴⁾	GWSoil _{Class 3} ⁽⁵⁾	AirSoil _{Inh-V} ⁽⁶⁾	AirGWSoil _{Inh-V} ⁽⁷⁾		TCEQ ⁽⁹⁾	Site-Specific ⁽¹⁰⁾	
2,2-Dichloropropane	---	4.4E+01	1.4E+01	4.4E+01	4.6E+01	1.4E+01	---	---	1.4E+01
2-Butanone	3.4E+04	7.3E+04	4.4E+03	8.2E+04	4.9E+05	4.4E+03	---	---	4.4E+03
2-Chloroethylvinyl ether	---	3.3E+00	3.2E-01	3.3E+00	6.2E+00	3.2E-01	---	---	3.2E-01
2-Chlorotoluene	5.1E+02	2.5E+03	1.4E+03	3.1E+03	1.3E+04	5.1E+02	---	---	5.1E+02
2-Hexanone	---	7.9E+01	5.8E+02	7.9E+01	3.7E+02	7.9E+01	---	---	7.9E+01
4-Chlorotoluene	---	3.5E+00	5.7E+03 ⁽¹¹⁾	3.5E+00	1.6E+01	3.5E+00	---	---	3.5E+00
4-Isopropyltoluene	---	4.7E+03	3.5E+04	4.9E+03	3.9E+04	4.7E+03	---	---	4.7E+03
4-Methyl-2-pentanone	1.7E+04	2.8E+04	7.4E+02	4.2E+04	1.5E+05	7.4E+02	---	---	7.4E+02
Acetone	1.0E+05	8.1E+03	6.4E+03	8.2E+03	4.5E+04	6.4E+03	---	---	6.4E+03
Acrolein	3.8E-01	8.1E-01	3.5E+00	8.1E-01	1.2E+01	3.8E-01	---	---	3.8E-01
Acrylonitrile	5.5E-01	4.2E+00	3.7E-01	4.6E+00	1.2E+01	3.7E-01	---	---	3.7E-01
Benzene	1.6E+00	1.11E+02 ⁽¹¹⁾	1.3E+00	1.41E+02 ⁽¹¹⁾	1.00E+02 ⁽¹¹⁾	1.3E+00	---	---	1.3E+00
Bromobenzene	1.2E+02	1.2E+02 ⁽¹¹⁾	8.6E+02	1.2E+02 ⁽¹¹⁾	4.0E+02 ⁽¹¹⁾	1.2E+02	---	---	1.2E+02
Bromodichloromethane	2.6E+00	4.6E+02	7.3E+00	---	---	2.6E+00	---	---	2.6E+00
Bromoform	2.4E+02	6.0E+02	7.1E+01	7.2E+02	3.1E+03	7.1E+01	---	---	7.1E+01
Bromomethane	1.5E+01	5.3E+01	2.0E+01	5.5E+01	1.6E+01	1.5E+01	---	---	1.5E+01
Butanol	6.8E+04	3.1E+03	7.9E+02	3.2E+03	3.8E+04	7.9E+02	---	---	7.9E+02
Carbon disulfide	7.2E+02	7.2E+03	2.0E+03	7.7E+03	2.4E+03	7.2E+02	---	---	7.2E+02
Carbon tetrachloride	5.8E-01	1.9E+01	3.1E+00	2.1E+01	1.1E+01	5.8E-01	---	---	5.8E-01
Chlorobenzene	6.0E+02	5.4E+02 ⁽¹¹⁾	5.5E+01	5.5E+02 ⁽¹¹⁾	1.1E+03 ⁽¹¹⁾	5.5E+01	---	---	5.5E+01
Chloroethane	7.2E+00	8.7E+04	4.6E+03	1.1E+05	3.3E+04	7.2E+00	---	---	7.2E+00
Chloroform	5.8E-01	1.3E+01	1.5E+02	1.3E+01	9.0E+00	5.8E-01	---	---	5.8E-01
Chloromethane	3.0E+00	1.6E+02	4.5E+01	1.7E+02	2.3E+01	3.0E+00	---	---	3.0E+00
cis-1,2-Dichloroethene	1.6E+02	4.7E+03	1.2E+01	8.8E+03	5.2E+03	1.2E+01	---	---	1.2E+01
cis-1,3-Dichloropropene	---	4.3E+01	7.4E-01	7.4E+01	8.2E+01	7.4E-01	---	---	7.4E-01
Dibromochloromethane	2.6E+00	3.4E+02	5.5E+00	---	---	2.6E+00	---	---	2.6E+00
Dibromomethane	5.9E+02	1.9E+02	1.3E+02	1.9E+02	6.6E+02	1.3E+02	---	---	1.3E+02
Dichlorodifluoromethane	3.4E+02	4.3E+04	3.6E+04	5.5E+04	1.3E+04	3.4E+02	---	---	3.4E+02
Ethylbenzene	2.3E+02	1.0E+04	3.8E+02	1.1E+04	1.5E+04	2.3E+02	---	---	2.3E+02
Hexachlorobutadiene	2.5E+01	2.3E+01	3.7E+02 ⁽¹¹⁾	2.5E+01	2.7E+02	2.3E+01	---	---	2.3E+01
Isopropylbenzene (Cumene)	5.8E+02	6.3E+03	5.2E+04	6.7E+03	5.7E+04	5.8E+02	---	---	5.8E+02
Methyl acetate	1.0E+05	6.6E+03	7.3E+03	6.6E+03	2.4E+04	6.6E+03	---	---	6.6E+03
Methyl iodide	---	1.2E+02	1.7E+01	1.3E+02	5.1E+01	1.7E+01	---	---	1.7E+01
Methylcyclohexane	1.4E+02	3.3E+04	1.0E+06	3.3E+04	1.6E+04	1.4E+02	---	---	1.4E+02
Methylene chloride	2.2E+01	5.6E+02	6.5E-01	6.6E+02	3.6E+02	6.5E-01	---	---	6.5E-01
Naphthalene	2.1E+02	1.9E+02	4.7E+03	1.9E+02	1.8E+03	1.9E+02	---	---	1.9E+02
n-Butylbenzene	2.4E+02	4.0E+03	1.8E+04	4.7E+03	4.1E+04	2.4E+02	---	---	2.4E+02
n-Propylbenzene	2.4E+02	4.1E+03	6.7E+03	4.6E+03	2.5E+04	2.4E+02	---	---	2.4E+02
o-Xylene	2.8E+02	8.0E+03 ⁽¹¹⁾	3.5E+03	8.1E+03 ⁽¹¹⁾	8.0E+04 ⁽¹¹⁾	2.8E+02	---	---	2.8E+02

TABLE 8 - EXTENT EVALUATION COMPARISON VALUES - EASTERN AND VERTICAL EXTENT IN SOIL⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 15 of RI/FS Work Plan ⁽²⁾					PSV	Potential Background Values		Extent Evaluation Comparison Value
	EPA Region 6 Soil Screening Criteria ⁽³⁾	TotSoil _{Comb} ⁽⁴⁾	GWSoil _{Class 3} ⁽⁵⁾	AirSoil _{Inh-V} ⁽⁶⁾	AirGWSoil _{Inh-V} ⁽⁷⁾		TCEQ ⁽⁹⁾	Site-Specific ⁽¹⁰⁾	
sec-Butylbenzene	2.2E+02	3.7E+03	1.3E+04	4.1E+03	3.0E+04	2.2E+02	---	---	2.2E+02
Styrene	1.7E+03	1.6E+04	1.6E+02	1.7E+04	9.5E+04	1.6E+02	---	---	1.6E+02
tert-Butyl methyl ether (MTBE)	4.1E+01	1.1E+03	9.3E+01	1.2E+03	1.1E+03	4.1E+01	---	---	4.1E+01
tert-Butylbenzene	3.9E+02	3.2E+03	1.5E+04	3.4E+03	2.3E+04	3.9E+02	---	---	3.9E+02
Tetrachloroethene	1.7E+00	2.7E+02	2.5E+00	5.3E+02	3.6E+02	1.7E+00	---	---	1.7E+00
Toluene	5.2E+02	3.3E+04 ⁽¹¹⁾	4.1E+02	5.5E+04 ⁽¹¹⁾	5.8E+04 ⁽¹¹⁾	4.1E+02	---	---	4.1E+02
trans-1,2-Dichloroethene	2.4E+02	6.42E+02 ⁽¹¹⁾	2.5E+01	6.63E+02 ⁽¹¹⁾	3.41E+02 ⁽¹¹⁾	2.5E+01	---	---	2.5E+01
trans-1,3-Dichloropropene	---	6.1E+01	4.0E+00	7.7E+01	8.1E+01	4.0E+00	---	---	4.0E+00
trans-1,4-Dichloro-2-butene	---	2.9E-01	---	2.9E-01	1.2E+00	2.9E-01	---	---	2.9E-01
Trichloroethene	1.0E-01	1.7E+02	1.7E+00	1.8E+02	1.2E+02	1.0E-01	---	---	1.0E-01
Trichlorofluoromethane	1.4E+03	2.8E+04	1.9E+04	3.1E+04	6.4E+03	1.4E+03	---	---	1.4E+03
Trichlorotrifluoroethane	5.6E+03	3.3E+05	1.0E+06	3.3E+05	9.0E+04	5.6E+03	---	---	5.6E+03
Vinyl acetate	1.6E+03	2.2E+03	8.0E+03	2.2E+03	2.8E+03	1.6E+03	---	---	1.6E+03
Vinyl chloride	4.3E-01	1.2E+01	1.1E+00	3.5E+01	4.4E+00	4.3E-01	---	---	4.3E-01
Xylene (total)	2.1E+02	1.1E+03	6.1E+03	1.1E+03	1.9E+03	2.1E+02	---	---	2.1E+02
SVOCs									
1,2-Diphenylhydrazine/Azobenzen	2.4E+00	1.5E+02 ⁽¹¹⁾	2.0E+03 ⁽¹¹⁾	1.2E+03 ⁽¹¹⁾	1.6E+05 ⁽¹¹⁾	2.4E+00	---	---	2.4E+00
2,4,5-Trichlorophenol	6.8E+04	1.2E+04	5.1E+03	1.5E+04	5.7E+05	5.1E+03	---	---	5.1E+03
2,4,6-Trichlorophenol	1.7E+02	6.81E+02 ⁽¹¹⁾	2.61E+01 ⁽¹¹⁾	1.7E+03	3.8E+04	2.6E+01	---	---	2.6E+01
2,4-Dichlorophenol	2.1E+03	1.7E+03	5.3E+01	9.6E+03	2.4E+05	5.3E+01	---	---	5.3E+01
2,4-Dimethylphenol	1.4E+04	2.9E+03	4.8E+02	3.6E+03	9.8E+04	4.8E+02	---	---	4.8E+02
2,4-Dinitrophenol	1.4E+03	1.4E+03	1.4E+01	---	---	1.4E+01	---	---	1.4E+01
2,4-Dinitrotoluene	1.4E+03	2.1E+01	6.0E-01	2.1E+01	4.4E+02	6.0E-01	---	---	6.0E-01
2,6-Dinitrotoluene	6.8E+02	2.8E+01	5.4E-01	3.1E+01	1.0E+03	5.4E-01	---	---	5.4E-01
2-Chloronaphthalene	2.6E+04	5.0E+04	1.0E+05	---	---	2.6E+04	---	---	2.6E+04
2-Chlorophenol	2.6E+02	2.4E+03	2.4E+02	4.5E+03	7.4E+04	2.4E+02	---	---	2.4E+02
2-Methylnaphthalene	---	2.5E+03	2.5E+03	---	---	2.5E+03	---	---	2.5E+03
2-Nitroaniline	2.0E+03	2.9E+01 ⁽¹¹⁾	3.3E+00 ⁽¹¹⁾	3.4E+01 ⁽¹¹⁾	1.1E+03 ⁽¹¹⁾	3.3E+00	---	---	3.3E+00
2-Nitrophenol	---	4.1E+02	2.0E+01	5.8E+02	1.7E+04	2.0E+01	---	---	2.0E+01
3,3'-Dichlorobenzidine	4.3E+00	4.2E+01	7.0E+00	---	---	4.3E+00	---	---	4.3E+00
3-Nitroaniline	---	1.6E+02	3.8E+00	6.4E+02	2.3E+04	3.8E+00	---	---	3.8E+00
4,6-Dinitro-2-methylphenol	---	2.26E+01 ⁽¹¹⁾	7.0E-01 ⁽¹¹⁾	3.4E+01	1.5E+03	7.0E-01	---	---	7.0E-01
4-Bromophenyl phenyl ether	---	1.1E+00	4.0E+01	8.4E+00	1.0E+03	1.1E+00	---	---	1.1E+00
4-Chloro-3-methylphenol	---	3.0E+03	6.8E+02	2.5E+04	1.0E+06	6.8E+02	---	---	6.8E+02
4-Chloroaniline	2.7E+03	7.5E+02	6.7E+01	1.0E+03	2.8E+04	6.7E+01	---	---	6.7E+01
4-Chlorophenyl phenyl ether	---	8.0E-01	3.6E+00	2.2E+00	7.0E+01	8.0E-01	---	---	8.0E-01
4-Nitroaniline	---	3.6E+02 ⁽¹¹⁾	6.4E+00 ⁽¹¹⁾	4.3E+02 ⁽¹¹⁾	1.5E+04 ⁽¹¹⁾	6.4E+00	---	---	6.4E+00

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Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 15 of RI/FS Work Plan ⁽²⁾					PSV	Potential Background Values		Extent Evaluation Comparison Value
	EPA Region 6 Soil Screening Criteria ⁽³⁾	T ^o l Soil _{Comb} ⁽⁴⁾	G ^W Soil _{Class 3} ⁽⁵⁾	Air Soil _{Inh-V} ⁽⁶⁾	Air G ^W Soil _{Inh-V} ⁽⁷⁾		TCEQ ⁽⁹⁾	Site-Specific ⁽¹⁰⁾	
4-Nitrophenol	5.5E+03	1.1E+02	1.5E+01	1.2E+02	4.4E+03	1.5E+01	---	---	1.5E+01
Acenaphthene	3.3E+04	3.7E+04	3.5E+04	---	---	3.3E+04	---	---	3.3E+04
Acenaphthylene	---	3.7E+04	6.1E+04	---	---	3.7E+04	---	---	3.7E+04
Acetophenone	1.7E+03	3.3E+03	1.2E+03	3.5E+03	4.1E+04	1.2E+03	---	---	1.2E+03
Aniline	3.4E+02	9.3E+01	4.1E+01	9.4E+01	2.3E+03	4.1E+01	---	---	4.1E+01
Anthracene	1.0E+05	1.9E+05	1.0E+06	---	---	1.0E+05	---	---	1.0E+05
Atrazine (Aatrex)	8.6E+00	8.6E+01	1.2E+00	2.4E+03	1.4E+05	1.2E+00	---	---	1.2E+00
Benzaldehyde	6.8E+04	3.4E+02	1.6E+03	3.5E+02	2.0E+03	3.4E+02	---	---	3.4E+02
Benzidine	8.3E-03	3.3E-02	1.2E-03	5.4E-02	1.9E+00	1.2E-03	---	---	1.2E-03
Benzo(a)anthracene	2.3E+00	2.4E+01	2.0E+03	3.2E+03	1.0E+06	2.3E+00	---	---	2.3E+00
Benzo(a)pyrene	2.3E-01	2.4E+00	3.8E+02	7.3E+02	1.0E+06	2.3E-01	---	---	2.3E-01
Benzo(b)fluoranthene	2.3E+00	2.4E+01	6.7E+03	5.3E+03	1.0E+06	2.3E+00	---	---	2.3E+00
Benzo(g,h,i)perylene	---	1.9E+04	1.0E+06	---	---	1.9E+04	---	---	1.9E+04
Benzo(k)fluoranthene	2.3E+01	2.4E+02	6.9E+04	1.3E+05	1.0E+06	2.3E+01	---	---	2.3E+01
Benzoic acid	1.0E+05	5.0E+02	2.8E+04	5.0E+02	1.8E+04	5.0E+02	---	---	5.0E+02
Benzyl alcohol	1.0E+05	6.2E+03	4.4E+03 ⁽¹¹⁾	6.4E+03	2.0E+05	4.4E+03	---	---	4.4E+03
Biphenyl	2.6E+04	1.9E+02	3.8E+04	1.9E+02	3.8E+03	1.9E+02	---	---	1.9E+02
Bis(2-Chloroethoxy)methane	---	6.2E+00	1.3E+00	9.8E+00	1.2E+02	1.3E+00	---	---	1.3E+00
Bis(2-Chloroethyl)ether	6.2E-01	2.8E+00	2.4E-01	3.1E+00	2.6E+01	2.4E-01	---	---	2.4E-01
Bis(2-Chloroisopropyl)ether	---	1.1E+02	2.1E+01	1.8E+02	1.4E+03	2.1E+01	---	---	2.1E+01
Bis(2-Ethylhexyl)phthalate	1.4E+02	5.6E+02	8.2E+03	---	---	1.4E+02	---	---	1.4E+02
Butyl benzyl phthalate	2.4E+02	1.6E+04	4.0E+05	1.8E+04	1.0E+06	2.4E+02	---	---	2.4E+02
Caprolactam	1.0E+05	2.3E+02	7.0E+03	2.3E+02	8.5E+03	2.3E+02	---	---	2.3E+02
Carbazole	9.6E+01	9.5E+02	5.1E+02	---	---	9.6E+01	---	---	9.6E+01
Chrysene	2.3E+02	2.4E+03	1.7E+05	5.1E+05	1.0E+06	2.3E+02	---	---	2.3E+02
Dibenz(a,h)anthracene	2.3E-01	2.4E+00	1.1E+03	1.7E+03	1.0E+06	2.3E-01	---	---	2.3E-01
Dibenzofuran	1.7E+03	2.7E+03	5.0E+03	---	---	1.7E+03	---	---	1.7E+03
Diethyl phthalate	1.0E+05	2.0E+03	2.3E+04	2.1E+03	9.8E+04	2.0E+03	---	---	2.0E+03
Dimethyl phthalate	1.0E+05	9.3E+02	9.3E+03	9.3E+02	3.0E+04	9.3E+02	---	---	9.3E+02
Di-n-butyl phthalate	6.8E+04	1.6E+04	5.0E+05	2.1E+04	1.0E+06	1.6E+04	---	---	1.6E+04
Di-n-octyl phthalate	2.7E+04	1.3E+04 ⁽¹¹⁾	1.0E+06	3.9E+05 ⁽¹¹⁾	1.0E+06 ⁽¹¹⁾	1.3E+04	---	---	1.3E+04
Fluoranthene	2.4E+04	2.5E+04	2.9E+05	---	---	2.4E+04	---	---	2.4E+04
Fluorene	2.6E+04	2.5E+04	4.5E+04	---	---	2.5E+04	---	---	2.5E+04
Hexachlorobenzene	1.2E+00	6.9E+00	5.6E+01	1.6E+01	7.0E+02	1.2E+00	---	---	1.2E+00
Hexachlorocyclopentadiene	4.1E+03	1.0E+01	9.6E+02	1.0E+01	1.9E+02	1.0E+01	---	---	1.0E+01
Hexachloroethane	1.4E+02	5.2E+02	2.7E+02	8.3E+02	1.2E+04	1.4E+02	---	---	1.4E+02
Indeno(1,2,3-cd)pyrene	2.3E+00	2.4E+01	1.9E+04	2.2E+04	1.0E+06	2.3E+00	---	---	2.3E+00
Isophorone	2.0E+03	1.9E+03	3.4E+02	1.9E+03	2.9E+04	3.4E+02	---	---	3.4E+02
Nitrobenzene	1.1E+02	1.9E+02	1.3E+01	4.1E+02	4.0E+03	1.3E+01	---	---	1.3E+01

TABLE 8 - EXTENT EVALUATION COMPARISON VALUES - EASTERN AND VERTICAL EXTENT IN SOIL⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 15 of RI/FS Work Plan ⁽²⁾					PSV	Potential Background Values		Extent Evaluation Comparison Value
	EPA Region 6 Soil Screening Criteria ⁽³⁾	TotSoil _{Comb} ⁽⁴⁾	GWSoil _{Class 3} ⁽⁵⁾	AirSoil _{Inh-V} ⁽⁶⁾	AirGWSoil _{Inh-V} ⁽⁷⁾		TCEQ ⁽⁹⁾	Site-Specific ⁽¹⁰⁾	
n-Nitrosodimethylamine	3.8E-02	1.3E-01	4.1E-03	1.7E-01	4.5E+00	4.1E-03	---	---	4.1E-03
n-Nitrosodi-n-propylamine	2.7E-01	1.4E+00	3.9E-02	---	---	3.9E-02	---	---	3.9E-02
n-Nitrosodiphenylamine	3.9E+02	1.9E+03	3.2E+02	---	---	3.2E+02	---	---	3.2E+02
o-Cresol	3.4E+04	1.9E+03	1.1E+03	2.0E+03	5.3E+04	1.1E+03	---	---	1.1E+03
Pentachlorophenol	1.0E+01	1.1E+02	9.2E-01	3.3E+02	2.2E+04	9.2E-01	---	---	9.2E-01
Phenanthrene	---	1.9E+04	6.2E+04	---	---	1.9E+04	---	---	1.9E+04
Phenol	1.0E+05	2.4E+03	2.9E+03	2.4E+03	6.5E+04	2.4E+03	---	---	2.4E+03
Pyrene	3.2E+04	1.9E+04	1.7E+05	---	---	1.9E+04	---	---	1.9E+04
Pyridine	6.8E+02	1.4E+02	1.0E+01	1.7E+02	5.7E+01	1.0E+01	---	---	1.0E+01
Sulfate	---	---	---	---	---	NV	---	---	NV
Chloride	---	---	---	---	---	NV	---	---	NV

Notes:

- All values in mg/kg.
- Values from Table 15 of RI/FS Work Plan (updated to reflect changes in toxicity data since 2005 where applicable).
- From EPA's "Region 6 Human Health Medium-Specific Screening Levels 2004-2005". Industrial Outdoor Worker.
- TotSoil_{Comb} PCL = TCEQ Protective Concentration Level for 30 acre source area Commercial/Industrial total soil combined pathway (includes inhalation; ingestion; dermal pathways).
- GWSoil_{Class 3} PCL = TCEQ Protective Concentration Level for 30 acre source area Commercial/Industrial soil-to-groundwater leaching for Class 3 groundwater pathway.
- AirSoil_{Inh-V} PCL = TCEQ Protective Concentration Level for 30 acre source area Commercial/Industrial soil-to-air pathway (inhalation of volatiles and particulates).
- AirGWSoil_{Inh-V} PCL = TCEQ Protective Concentration Level for 30 acre source area Commercial/Industrial soil and groundwater-to-air pathway (inhalation of volatiles and particulates).
- NV = No Preliminary Screening Value.
- From 30 TAC 350.51(m)
- 95% UTL calculated from site-specific background samples.
- Updated from Table 15 of RI/FS Workplan to reflect changes in toxicity data from 2005 to 2008 indicated in TCEQ PCL tables.

TABLE 9 - DETECTED SOIL CONCENTRATIONS EXCEEDING EXTENT EVALUATION COMPARISON VALUES - VERTICAL EXTENT OF SOUTH AREA

Sample Location	Sample Depth (ft)	Chemical of Interest	Concentration (mg/kg)	Extent Evaluation Comparison Value ⁽¹⁾ (mg/kg)
SA1SB15	1-2	Benzo(a)anthracene	4.21J	2.3
		Benzo(a)pyrene	4.88J	0.23
		Benzo(b)fluoranthene	5.34J	2.3
		Dibenz(a,h)anthracene	0.817	0.23
		Indeno(1,2,3-cd)pyrene	4.37J	2.3
		Lead	395	151
SA2SB16	1-2	Aroclor-1254	3.42	0.83
		Benzo(a)pyrene	2.13J	0.23
		Benzo(b)fluoranthene	2.76J	2.3
		Dibenz(a,h)anthracene	0.322	0.23
		Lead	702	151
SA3SB17	1-2	Aroclor-1254	11.5	0.83
		Benzo(a)pyrene	0.608J	0.23
		Lead	252	151
		Mercury	0.85	0.391
SB2SB22	1-2	Aroclor-1254	2.84	0.83
		Benzo(a)pyrene	0.38J	0.23
SB4SB24	1-2	Aroclor-1254	2.73	0.83
		Benzo(a)pyrene	1.37J	0.23
		Dibenz(a,h)anthracene	0.324	0.23
SC3SB27	1-2	Dibenz(a,h)anthracene	0.606	0.23
SC4SB28	1-2	Benzo(a)pyrene	1.2J	0.23
		Lead	192J	151
SD3SB33	1-2	Benzo(a)pyrene	0.509J	0.23
SD5SB35	1-2	Aroclor-1254	1.41	0.83
		Benzo(a)anthracene	4.79	2.3
		Benzo(a)pyrene	4.45J	0.23
		Benzo(b)fluoranthene	5.97	2.3
		Dibenz(a,h)anthracene	1.23	0.23
		Indeno(1,2,3-cd)pyrene	2.79J	2.3
		Mercury	0.5	0.391
SF2SB44	1-2	Dibenz(a,h)anthracene	0.354J	0.23
SF3SB45	1-2	Arsenic	9.58	8.66
		Benzo(a)pyrene	0.966J	0.23
SF4SB46	1-2	Benzo(a)pyrene	0.921J	0.23
SG4SB56	1-2	Benzo(a)pyrene	0.248J	0.23
SG6SB59	1-2	Benzo(a)pyrene	0.276J	0.23
SI1SB69	1-2	Arsenic	9.38	8.66

Notes:

(1) Extent Evaluation Comparison Values from Table 8.

(2) Data qualifiers: J = estimated value.

TABLE 10 - SOUTH AREA PHASE 2 DEEP SOIL SAMPLE DATA

Sample Location	Sample Depth (ft)	Chemical of Interest	Concentration (mg/kg)	Extent Evaluation Comparison Value ⁽¹⁾ (mg/kg)
SA1SB15	4-5	Benzo(a)anthracene	<0.00504	2.3
		Benzo(a)pyrene	0.0269 J	0.23
		Benzo(b)fluoranthene	0.0281 J	2.3
		Dibenz(a,h)anthracene	<0.00655	0.23
		Indeno(1,2,3-cd)pyrene	0.0236 J	2.3
		Lead	12.1	151
SA2SB16	4-5	Aroclor-1254	<0.00579	0.83
		Benzo(a)pyrene	<0.00866	0.23
		Benzo(b)fluoranthene	<0.0118	2.3
		Dibenz(a,h)anthracene	<0.00661	0.23
		Lead	7.88	151
SA3SB17	4-5	Aroclor-1254	<0.00614	0.83
		Benzo(a)pyrene	<0.00928	0.23
		Lead	11.7	151
		Mercury	<0.024	0.391
SB2SB22	4-5	Aroclor-1254	0.0769	0.83
		Benzo(a)pyrene	<0.00986	0.23
SB4SB24	4-5	Aroclor-1254	0.0203 J	0.83
		Benzo(a)pyrene	0.0311 J	0.23
		Dibenz(a,h)anthracene	<0.00734	0.23
SC3SB27	4-5	Dibenz(a,h)anthracene	<0.0068	0.23
SC4SB28	4-5	Benzo(a)pyrene	<0.00899	0.23
		Lead	11.3	151
SD3SB33	4-5	Benzo(a)pyrene	<0.00924	0.23
SD5SB35	4-5	Aroclor-1254	<0.00648	0.83
		Benzo(a)anthracene	<0.00567	2.3
		Benzo(a)pyrene	<0.00966	0.23
		Benzo(b)fluoranthene	<0.0132	2.3
		Dibenz(a,h)anthracene	<0.00737	0.23
		Indeno(1,2,3-cd)pyrene	<0.0141	2.3
		Mercury	<0.028	0.391
SF2SB44	4-5	Dibenz(a,h)anthracene	<0.00752	0.23
SF3SB45	4-5	Arsenic	0.25 J	8.66
		Benzo(a)pyrene	<0.00935	0.23
SF4SB46	4-5	Benzo(a)pyrene	<0.00949	0.23
SG4SB56	4-5	Benzo(a)pyrene	<0.00965	0.23
SG6SB59	4-5	Benzo(a)pyrene	<0.00906	0.23
SI1SB69	4-5	Arsenic	<0.13	8.66

Notes:

(1) Extent Evaluation Comparison Values from Table 8.

(2) Data qualifiers: J = estimated value.

**TABLE 11 - LOT 19 / 20 SOIL SAMPLE
LEAD CONCENTRATIONS**

Sample ID	Lead Concentration (mg/kg)
L19SS01	17.3
L19SS02	18.8
L19SS03	11.2
L19SS04	8.87
L19SS05	12.0
L19SS06	19.3
L19SS07	12.8
L19SS08	12.8
L19SS09	55.3
L19SS10	17.1
L19SS11	12.1
L19SS12	13.5
L19SS13	16.7
L19SS14	16.0
L19SS15	23.2
L19SS16	18.8
L19SS17	175
L20SS01	10.8
L20SS02	222
L20SS03	23.1
L20SS04	462
L20SS05	8.61
L20SS06	23.8
L20SS07	129
L20SS08	73.6
L20SS09	84.3
L20SS10	253

Notes:

1. Data Qualifiers: none.

TABLE 12 - FORMER SURFACE IMPOUNDMENTS CAP MATERIAL DATA

Boring Location	Cap Material Description⁽¹⁾	Observed Cap Thickness (ft)	Liquid Limit⁽²⁾ (%)	Plastic Limit⁽²⁾ (%)	Plasticity Index⁽²⁾ (%)	Percent Passing # 200 Sieve⁽³⁾ (%)	Moisture Content⁽⁴⁾ (%)	Vertical Hydraulic Conductivity⁽⁵⁾ (cm/sec)
ND1GT01	Sandy Lean Clay	2.9	48	16	32	70	20	3.5×10^{-8}
ND2GT02	Lean Clay with Sand	>3.5	49	14	35	84	23	1.4×10^{-8}
NE1GT03	Lean Clay with Sand	2.5	49	13	35	74	19	5.0×10^{-9}
NE2GT04	Fat Clay	3.6	58	15	43	88	26	5.9×10^{-9}
TCEQ Technical Guideline No. 3 Recommended Value/Range			--	--	10 - 35	>20	--	$<1.0 \times 10^{-7}$

Notes:

1. Crushed oyster shell surface observed above clay cap at all four boring locations.
2. ASTM Method D 4318
3. ASTM Method D 1140
4. ASTM Method D 2216
5. US Army Corps of Engineers, Engineering Manual Method 1110-2-1906

**TABLE 13 - DETECTED SOIL CONCENTRATIONS EXCEEDING EXTENT
EVALUATION COMPARISON VALUES - NORTH AREA**

Sample Location	Sample Depth (ft below ground surface)	Chemical of Interest	Concentration (mg/kg)	Extent Evaluation Comparison Value ⁽¹⁾ (mg/kg)
ND3SB04	1-2	1,2,3-Trichloropropane	0.168	0.0014
		Trichloroethene	0.537	0.043
	4-5	1,2,3-Trichloropropane	0.0472	0.0014
		Trichloroethene	0.29J	0.043
NE3SB09	0-0.5	Benzo(a)pyrene	1.42J	0.062
		Dibenz(a,h)anthracene	0.404J-	0.062
SB-202	0-0.5	Iron	102,000	53,000
		Lead	471	18
SB-203	1.5-2	Benzo(a)pyrene	0.939	0.062
SB-204	1.5-2	Aroclor-1254	6.35J	0.22
SB-205	3-4	Iron	128,000	53,000
		Lead	630	18
SB-206	5-6	Arsenic	8.95	8.7

Notes:

(1) Extent Evaluation Comparison Values from Table 6.

(2) Data qualifiers: J = estimated value. J- = estimated value, biased low.

TABLE 14 - WETLAND AND POND SEDIMENT EXTENT EVALUATION COMPARISON VALUES⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 21 of RI/FS Work Plan ⁽²⁾			PSV	Potential Site-Specific Background Values ⁽⁶⁾	Extent Evaluation Comparison Value
	To ^t Sed _{Comb} ⁽³⁾	TCEQ Ecological Benchmark for Sediment ⁽⁴⁾	EPA EcoTox Threshold ⁽⁵⁾			
METALS						
Aluminum	1.5E+05	---	---	1.5E+05	---	1.5E+05
Antimony	8.3E+01	---	---	8.3E+01	---	8.3E+01
Arsenic	1.1E+02	8.2E+00	8.2E+00	8.2E+00	8.7E+00	8.7E+00
Barium	2.3E+04	---	---	2.3E+04	4.6E+02	2.3E+04
Beryllium	2.7E+01	---	---	2.7E+01	---	2.7E+01
Boron	1.1E+05	---	---	1.1E+05	---	1.1E+05
Cadmium	1.1E+03	1.2E+00	1.2E+00	1.2E+00	---	1.2E+00
Chromium	3.6E+04	8.1E+01	8.1E+01	8.1E+01	2.4E+01	8.1E+01
Chromium (VI)	1.4E+02	---	---	1.4E+02	---	1.4E+02
Cobalt	3.2E+04	---	---	3.2E+04	---	3.2E+04
Copper	2.1E+04	3.4E+01	3.4E+01	3.4E+01	2.4E+01	3.4E+01
Iron	---	---	---	NV	---	NV
Lead	5.0E+02	4.7E+01	4.7E+01	4.7E+01	1.8E+01	4.7E+01
Lithium	1.1E+04	---	---	1.1E+04	3.6E+01	1.1E+04
Manganese	1.4E+04	---	---	1.4E+04	6.5E+02	1.4E+04
Mercury	3.4E+01	1.5E-01	1.5E-01	1.5E-01	3.5E-02	1.5E-01
Molybdenum	1.8E+03	---	---	1.8E+03	7.4E-01	1.8E+03
Nickel	1.4E+03	2.1E+01	2.1E+01	2.1E+01	---	2.1E+01
Selenium	2.7E+03	---	---	2.7E+03	---	2.7E+03
Silver	3.5E+02	1.0E+00	1.0E+00	1.0E+00	---	1.0E+00
Strontium	1.5E+05	---	---	1.5E+05	---	1.5E+05
Thallium	4.3E+01	---	---	4.3E+01	---	4.3E+01
Tin	9.2E+04	---	---	9.2E+04	---	9.2E+04
Titanium	1.0E+06	---	---	1.0E+06	---	1.0E+06
Vanadium	3.3E+02	---	---	3.3E+02	---	3.3E+02
Zinc	7.6E+04	1.5E+02	1.5E+02	1.5E+02	2.8E+02	2.8E+02
PESTICIDES						
4,4'-DDD	1.2E+02	1.2E-03	1.2E-03	1.2E-03	---	1.2E-03
4,4'-DDE	8.7E+01	2.1E-03	2.1E-03	2.1E-03	---	2.1E-03
4,4'-DDT	8.7E+01	1.2E-03	1.2E-03	1.2E-03	---	1.2E-03

TABLE 14 - WETLAND AND POND SEDIMENT EXTENT EVALUATION COMPARISON VALUES⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 21 of RI/FS Work Plan ⁽²⁾			PSV	Potential Site-Specific Background Values ⁽⁶⁾	Extent Evaluation Comparison Value
	To ^t Sed _{Comb} ⁽³⁾	TCEQ Ecological Benchmark for Sediment ⁽⁴⁾	EPA EcoTox Threshold ⁽⁵⁾			
Aldrin	8.4E-01	---	---	8.4E-01	---	8.4E-01
alpha-BHC	4.1E+00	---	---	4.1E+00	---	4.1E+00
alpha-Chlordane	4.1E+01	2.3-03 ⁽⁷⁾	---	2.3E-03	---	2.3E-03
beta-BHC	1.4E+01	---	---	1.4E+01	---	1.4E+01
delta-BHC	1.4E+01	---	---	1.4E+01	---	1.4E+01
Dieldrin	8.9E-01	7.2E-04	7.2E-04	7.2E-04	---	7.2E-04
Endosulfan I	3.1E+02	---	2.9E-03	2.9E-03	---	2.9E-03
Endosulfan II	9.2E+02	---	1.4E-02	1.4E-02	---	1.4E-02
Endosulfan sulfate	9.2E+02	---	---	9.2E+02	---	9.2E+02
Endrin	4.6E+01	---	3.5E-03	3.5E-03	---	3.5E-03
Endrin aldehyde	4.6E+01	---	---	4.6E+01	---	4.6E+01
Endrin ketone	4.6E+01	---	---	4.6E+01	---	4.6E+01
gamma-BHC (Lindane)	2.0E+01	3.2E-04	3.2E-04	3.2E-04	---	3.2E-04
gamma-Chlordane	4.1E+01	2.3-03 ⁽⁷⁾	---	2.3E-03	---	2.3E-03
Heptachlor	3.2E+00	---	---	3.2E+00	---	3.2E+00
Heptachlor epoxide	1.6E+00	---	---	1.6E+00	---	1.6E+00
Methoxychlor	7.7E+02	---	1.9E-02	1.9E-02	---	1.9E-02
Toxaphene	1.3E+01	---	2.8E-02	2.8E-02	---	2.8E-02
PCBs	2.3E+00	2.3E-02	---	2.3E-02	---	2.3E-02
Aroclor-1016	---	---	---	0.0E+00	---	0.0E+00
Aroclor-1221	---	---	---	0.0E+00	---	0.0E+00
Aroclor-1232	---	---	---	0.0E+00	---	0.0E+00
Aroclor-1242	---	---	---	0.0E+00	---	0.0E+00
Aroclor-1248	---	---	---	0.0E+00	---	0.0E+00
Aroclor-1254	---	---	---	0.0E+00	---	0.0E+00
Aroclor-1260	---	---	---	0.0E+00	---	0.0E+00
VOCs						
1,1,1,2-Tetrachloroethane	2.1E+03	---	---	2.1E+03	---	2.1E+03
1,1,1-Trichloroethane	1.5E+05	2.6E+00	1.7E-01	1.7E-01	---	1.7E-01
1,1,2,2-Tetrachloroethane	2.7E+02	6.1E-01	9.4E-01	6.1E-01	---	6.1E-01
1,1,2-Trichloroethane	9.6E+02	3.0E-01	---	3.0E-01	---	3.0E-01

TABLE 14 - WETLAND AND POND SEDIMENT EXTENT EVALUATION COMPARISON VALUES⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 21 of RI/FS Work Plan ⁽²⁾			PSV	Potential Site-Specific Background Values ⁽⁶⁾	Extent Evaluation Comparison Value
	TotSed _{Comb} ⁽³⁾	TCEQ Ecological Benchmark for Sediment ⁽⁴⁾	EPA EcoTox Threshold ⁽⁵⁾			
1,1-Dichloroethane	7.3E+04	---	---	7.3E+04	---	7.3E+04
1,1-Dichloroethene	3.7E+04	1.5E+01	---	1.5E+01	---	1.5E+01
1,1-Dichloropropene	5.4E+02	---	---	5.4E+02	---	5.4E+02
1,2,3-Trichloropropane	7.8E+00	---	---	7.8E+00	---	7.8E+00
1,2,4-Trichlorobenzene	1.5E+03	3.9E-01	9.2E+00	3.9E-01	---	3.9E-01
1,2,4-Trimethylbenzene	3.7E+04	2.2E+00	---	2.2E+00	---	2.2E+00
1,2-Dibromo-3-chloropropane	1.0E+01	---	---	1.0E+01	---	1.0E+01
1,2-Dibromoethane	2.7E+01	---	---	2.7E+01	---	2.7E+01
1,2-Dichlorobenzene	6.6E+04	7.4E-01	3.4E-01	3.4E-01	---	3.4E-01
1,2-Dichloroethane	6.0E+02	4.3E+00	---	4.3E+00	---	4.3E+00
1,2-Dichloropropane	8.0E+02	2.8E+00	---	2.8E+00	---	2.8E+00
1,3,5-Trimethylbenzene	3.7E+04	---	---	3.7E+04	---	3.7E+04
1,3-Dichlorobenzene	2.2E+04	3.2E-01	1.7E+00	3.2E-01	---	3.2E-01
1,3-Dichloropropane	5.4E+02	4.0E-02	---	4.0E-02	---	4.0E-02
1,4-Dichlorobenzene	2.3E+03	7.0E-01	3.5E-01	3.5E-01	---	3.5E-01
2,2-Dichloropropane	8.0E+02	---	---	8.0E+02	---	8.0E+02
2-Butanone	4.4E+05	---	---	4.4E+05	---	4.4E+05
2-Chloroethylvinyl ether	5.0E+01	---	---	5.0E+01	---	5.0E+01
2-Chlorotoluene	3.1E+03	---	---	3.1E+03	---	3.1E+03
2-Hexanone	4.4E+04	---	---	4.4E+04	---	4.4E+04
4-Chlorotoluene	1.5E+04	---	---	1.5E+04	---	1.5E+04
4-Isopropyltoluene	7.3E+04	---	---	7.3E+04	---	7.3E+04
4-Methyl-2-pentanone	5.9E+04	4.5E+01	---	4.5E+01	---	4.5E+01
Acetone	6.6E+05	1.7E+02	---	1.7E+02	---	1.7E+02
Acrolein	3.7E+02	---	---	3.7E+02	---	3.7E+02
Acrylonitrile	1.0E+02	1.7E-01	---	1.7E-01	---	1.7E-01
Benzene	9.9E+02	1.4E-01	5.7E-02	5.7E-02	---	5.7E-02
Bromobenzene	1.5E+04	---	---	1.5E+04	---	1.5E+04
Bromodichloromethane	8.8E+02	---	---	8.8E+02	---	8.8E+02
Bromoform	6.9E+03	1.8E+00	6.5E-01	6.5E-01	---	6.5E-01
Bromomethane	1.0E+03	---	---	1.0E+03	---	1.0E+03

TABLE 14 - WETLAND AND POND SEDIMENT EXTENT EVALUATION COMPARISON VALUES⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 21 of RI/FS Work Plan ⁽²⁾			PSV	Potential Site-Specific Background Values ⁽⁶⁾	Extent Evaluation Comparison Value
	To ^t Sed _{Comb} ⁽³⁾	TCEQ Ecological Benchmark for Sediment ⁽⁴⁾	EPA EcoTox Threshold ⁽⁵⁾			
Butanol	7.3E+04	---	---	7.3E+04	---	7.3E+04
Carbon disulfide	7.3E+04	---	---	7.3E+04	---	7.3E+04
Carbon tetrachloride	4.2E+02	3.7E+00	1.2E+00	1.2E+00	---	1.2E+00
Chlorobenzene	1.5E+04	2.9E-01	8.2E-01	2.9E-01	---	2.9E-01
Chloroethane	2.9E+05	---	---	2.9E+05	---	2.9E+05
Chloroform	7.3E+03	4.3E+00	---	4.3E+00	---	4.3E+00
Chloromethane	4.2E+03	8.7E+00	---	8.7E+00	---	8.7E+00
cis-1,2-Dichloroethene	7.3E+03	---	---	7.3E+03	---	7.3E+03
cis-1,3-Dichloropropene	7.3E+01	---	---	7.3E+01	---	7.3E+01
Dibromochloromethane	6.5E+02	---	---	6.5E+02	---	6.5E+02
Dibromomethane	7.3E+03	---	---	7.3E+03	---	7.3E+03
Dichlorodifluoromethane	1.5E+05	---	---	1.5E+05	---	1.5E+05
Ethylbenzene	7.3E+04	6.5E-01	3.6E+00	6.5E-01	---	6.5E-01
Hexachlorobutadiene	3.1E+01	2.0E-02	---	2.0E-02	---	2.0E-02
Isopropylbenzene (Cumene)	7.3E+04	---	---	7.3E+04	---	7.3E+04
Methyl acetate	7.3E+05	---	---	7.3E+05	---	7.3E+05
Methyl iodide	1.0E+03	---	---	1.0E+03	---	1.0E+03
Methylcyclohexane	1.0E+06	---	---	1.0E+06	---	1.0E+06
Methylene chloride	7.3E+03	3.8E+00	---	3.8E+00	---	3.8E+00
Naphthalene	2.5E+03	1.6E-01	1.6E-01	1.6E-01	---	1.6E-01
n-Butylbenzene	6.1E+03	---	---	6.1E+03	---	6.1E+03
n-Propylbenzene	2.9E+04	---	---	2.9E+04	---	2.9E+04
o-Xylene	1.0E+06	---	---	1.0E+06	---	1.0E+06
sec-Butylbenzene	2.9E+04	---	---	2.9E+04	---	2.9E+04
Styrene	1.5E+05	3.7E+00	---	3.7E+00	---	3.7E+00
tert-Butyl methyl ether (MTBE)	7.3E+03	---	---	7.3E+03	---	7.3E+03
tert-Butylbenzene	2.9E+04	---	---	2.9E+04	---	2.9E+04
Tetrachloroethene	1.0E+03	3.1E+00	5.3E-01	5.3E-01	---	5.3E-01
Toluene	5.9E+04	9.4E-01	6.7E-01	6.7E-01	---	6.7E-01
trans-1,2-Dichloroethene	1.5E+04	---	---	1.5E+04	---	1.5E+04
trans-1,3-Dichloropropene	5.4E+02	---	---	5.4E+02	---	5.4E+02

TABLE 14 - WETLAND AND POND SEDIMENT EXTENT EVALUATION COMPARISON VALUES⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 21 of RI/FS Work Plan ⁽²⁾			PSV	Potential Site-Specific Background Values ⁽⁶⁾	Extent Evaluation Comparison Value
	To ^t Sed _{Comb} ⁽³⁾	TCEQ Ecological Benchmark for Sediment ⁽⁴⁾	EPA EcoTox Threshold ⁽⁵⁾			
Trichloroethene	4.4E+03	1.5E+00	1.6E+00	1.5E+00	---	1.5E+00
Trichlorofluoromethane	2.2E+05	---	---	2.2E+05	---	2.2E+05
Trichlorotrifluoroethane	1.0E+06	---	---	1.0E+06	---	1.0E+06
Vinyl acetate	7.3E+05	---	---	7.3E+05	---	7.3E+05
Vinyl chloride	3.6E+01	---	---	3.6E+01	---	3.6E+01
Xylene (total)	1.5E+05	2.5E+00	---	2.5E+00	---	2.5E+00
SVOCs						
1,2Diphenylhydrazine/Azobenzen	1.3E+02	---	---	1.3E+02	---	1.3E+02
2,4,5-Trichlorophenol	1.5E+04	---	---	1.5E+04	---	1.5E+04
2,4,6-Trichlorophenol	1.3E+03	---	---	1.3E+03	---	1.3E+03
2,4-Dichlorophenol	4.6E+02	---	---	4.6E+02	---	4.6E+02
2,4-Dimethylphenol	3.1E+03	---	---	3.1E+03	---	3.1E+03
2,4-Dinitrophenol	3.1E+02	---	---	3.1E+02	---	3.1E+02
2,4-Dinitrotoluene	2.1E+01	---	---	2.1E+01	---	2.1E+01
2,6-Dinitrotoluene	2.1E+01	---	---	2.1E+01	---	2.1E+01
2-Chloronaphthalene	9.9E+03	---	---	9.9E+03	---	9.9E+03
2-Chlorophenol	3.7E+03	---	---	3.7E+03	---	3.7E+03
2-Methylnaphthalene	4.9E+02	7.0E-02	7.0E-02	7.0E-02	---	7.0E-02
2-Nitroaniline	4.6E+01	---	---	4.6E+01	---	4.6E+01
2-Nitrophenol	3.1E+02	---	---	3.1E+02	---	3.1E+02
3,3'-Dichlorobenzidine	3.2E+01	---	---	3.2E+01	---	3.2E+01
3-Nitroaniline	4.6E+01	---	---	4.6E+01	---	4.6E+01
4,6-Dinitro-2-methylphenol	3.1E+02	---	---	3.1E+02	---	3.1E+02
4-Bromophenyl phenyl ether	9.5E-01	---	1.3E+00	9.5E-01	---	9.5E-01
4-Chloro-3-methylphenol	7.7E+02	---	---	7.7E+02	---	7.7E+02
4-Chloroaniline	6.1E+02	---	---	6.1E+02	---	6.1E+02
4-Chlorophenyl phenyl ether	9.5E-01	---	---	9.5E-01	---	9.5E-01
4-Nitroaniline	3.7E+02	---	---	3.7E+02	---	3.7E+02
4-Nitrophenol	3.1E+02	---	---	3.1E+02	---	3.1E+02
Acenaphthene	7.4E+03	1.6E-02	1.6E-02	1.6E-02	---	1.6E-02
Acenaphthylene	7.4E+03	4.4E-02	4.4E-02	4.4E-02	---	4.4E-02

TABLE 14 - WETLAND AND POND SEDIMENT EXTENT EVALUATION COMPARISON VALUES⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 21 of RI/FS Work Plan ⁽²⁾			PSV	Potential Site-Specific Background Values ⁽⁶⁾	Extent Evaluation Comparison Value
	To ^t Sed _{Comb} ⁽³⁾	TCEQ Ecological Benchmark for Sediment ⁽⁴⁾	EPA EcoTox Threshold ⁽⁵⁾			
Acetophenone	1.5E+04	---	---	1.5E+04	---	1.5E+04
Aniline	1.1E+03	---	---	1.1E+03	---	1.1E+03
Anthracene	3.7E+04	8.5E-02	8.5E-02	8.5E-02	---	8.5E-02
Atrazine (Aatrex)	6.4E+01	---	---	6.4E+01	---	6.4E+01
Benzaldehyde	7.3E+04	---	---	7.3E+04	---	7.3E+04
Benzidine	6.2E-02	---	---	6.2E-02	---	6.2E-02
Benzo(a)anthracene	1.6E+01	2.6E-01	2.6E-01	2.6E-01	---	2.6E-01
Benzo(a)pyrene	1.6E+00	4.3E-01	4.3E-01	4.3E-01	---	4.3E-01
Benzo(b)fluoranthene	1.6E+01	---	---	1.6E+01	---	1.6E+01
Benzo(g,h,i)perylene	3.7E+03	---	---	3.7E+03	---	3.7E+03
Benzo(k)fluoranthene	1.6E+02	---	---	1.6E+02	---	1.6E+02
Benzoic acid	6.1E+05	---	---	6.1E+05	---	6.1E+05
Benzyl alcohol	4.6E+04	---	---	4.6E+04	---	4.6E+04
Biphenyl	7.7E+03	---	1.1E+00	1.1E+00	---	1.1E+00
Bis(2-Chloroethoxy)methane	1.3E+01	---	---	1.3E+01	---	1.3E+01
Bis(2-Chloroethyl)ether	5.0E+01	---	---	5.0E+01	---	5.0E+01
Bis(2-Chloroisopropyl)ether	2.0E+02	---	---	2.0E+02	---	2.0E+02
Bis(2-Ethylhexyl)phthalate	2.4E+02	1.8E-01	1.8E-01	1.8E-01	---	1.8E-01
Butyl benzyl phthalate	3.1E+04	---	1.1E+01	1.1E+01	---	1.1E+01
Caprolactam	7.7E+04	---	---	7.7E+04	---	7.7E+04
Carbazole	7.1E+02	---	---	7.1E+02	---	7.1E+02
Chrysene	1.6E+03	3.8E-01	3.8E-01	3.8E-01	---	3.8E-01
Dibenz(a,h)anthracene	1.6E+00	6.3E-02	6.3E-02	6.3E-02	---	6.3E-02
Dibenzofuran	6.1E+02	---	2.0E+00	2.0E+00	---	2.0E+00
Diethyl phthalate	1.2E+05	---	6.3E-01	6.3E-01	---	6.3E-01
Dimethyl phthalate	1.2E+05	---	---	1.2E+05	---	1.2E+05
Di-n-butyl phthalate	1.5E+04	---	1.1E+01	1.1E+01	---	1.1E+01
Di-n-octyl phthalate	3.1E+03	---	---	3.1E+03	---	3.1E+03
Fluoranthene	4.9E+03	6.0E-01	6.0E-01	6.0E-01	---	6.0E-01
Fluorene	4.9E+03	1.9E-02	1.9E-02	1.9E-02	---	1.9E-02
Hexachlorobenzene	8.9E+00	---	---	8.9E+00	---	8.9E+00

TABLE 14 - WETLAND AND POND SEDIMENT EXTENT EVALUATION COMPARISON VALUES⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 21 of RI/FS Work Plan ⁽²⁾			PSV	Potential Site-Specific Background Values ⁽⁶⁾	Extent Evaluation Comparison Value
	TotSed _{Comb} ⁽³⁾	TCEQ Ecological Benchmark for Sediment ⁽⁴⁾	EPA EcoTox Threshold ⁽⁵⁾			
Hexachlorocyclopentadiene	9.2E+02	---	---	9.2E+02	---	9.2E+02
Hexachloroethane	1.5E+02	---	1.0E+00	1.0E+00	---	1.0E+00
Indeno(1,2,3-cd)pyrene	1.6E+01	---	---	1.6E+01	---	1.6E+01
Isophorone	1.5E+04	---	---	1.5E+04	---	1.5E+04
Nitrobenzene	7.7E+01	---	---	7.7E+01	---	7.7E+01
n-Nitrosodimethylamine	1.1E+00	---	---	1.1E+00	---	1.1E+00
n-Nitrosodi-n-propylamine	6.3E-01	---	---	6.3E-01	---	6.3E-01
n-Nitrosodiphenylamine	9.0E+02	---	---	9.0E+02	---	9.0E+02
o-Cresol	7.7E+03	---	---	7.7E+03	---	7.7E+03
Pentachlorophenol	5.6E+01	---	---	5.6E+01	---	5.6E+01
Phenanthrene	3.7E+03	2.4E-01	2.4E-01	2.4E-01	---	2.4E-01
Phenol	4.6E+04	---	---	4.6E+04	---	4.6E+04
Pyrene	3.7E+03	6.7E-01	6.7E-01	6.7E-01	---	6.7E-01
Pyridine	7.3E+02	---	---	7.3E+02	---	7.3E+02
Chloride	---	---	---	NV	NV	NV
Sulfate	---	---	---	NV	NV	NV
Total Moisture	---	---	---	NV	NV	NV
Total Organic Carbon	---	---	---	NV	NV	NV

Notes

1. All values in mg/kg.
2. Values from Table 21 of RI/FS Work Plan (updated to reflect changes since 2005 where applicable).
3. TotSed_{Comb} PCL = TCEQ Protective Concentration Level for total sediment combined pathway (includes inhalation; ingestion; dermal pathways).
4. From Table 3-3 of TCEQ "Guidance for Conducting Ecological Risk Assessments at Remediation Sites in Texas".
5. From Table 2 of EPA "Ecotox Thresholds" ECO Update January 1996.
6. 95% UTL calculated from site-specific background samples.
7. Value listed is for total Chlordane.
8. NV = No Preliminary Screening Value.

TABLE 15 - DETECTED WETLAND SEDIMENT CONCENTRATIONS EXCEEDING EXTENT EVALUATION COMPARISON VALUES

Sample Location	Sample Depth (ft)	Chemical of Interest	Concentration (mg/kg)	Extent Evaluation Comparison Value ⁽¹⁾ (mg/kg)
NA1SE01	0-0.5	4,4'-DDT	0.00204J	0.00119
NA2SE02	0-0.5	4,4'-DDT	0.00194J	0.00119
NA3SE03	0-0.5	4,4'-DDT	0.0016J	0.00119
NA4SE04	0-0.5	4,4'-DDT	0.00454J	0.00119
NB1SE05	0-0.5	Nickel	23.1	20.9
NB2SE06	1-2	2-Methylnaphthalene	0.43	0.07
		Acenaphthene	0.037J	0.016
		Fluorene	0.088	0.019
NB3SE07	0-0.5	4,4'-DDT	0.00186J	0.00119
NB4SE08	0-0.5	4,4'-DDT	0.00922J+	0.00119
		Acenaphthene	0.113	0.016
		Anthracene	0.188	0.0853
		Benzo(a)anthracene	0.993	0.261
		Benzo(a)pyrene	1.3J	0.43
		Chrysene	1.27	0.384
		Copper	39.6	34
		Dibenz(a,h)anthracene	0.337J-	0.0634
		Fluoranthene	2.17	0.6
		Fluorene	0.127	0.019
		Lead	88.1	46.7
		Phenanthrene	1.3	0.24
		Pyrene	1.64J-	0.665
Zinc	601	280		
NC3SE11	0-0.5	4,4'-DDT	0.00143J	0.00119
NC4SE12	0-0.5	4,4'-DDT	0.00468J+	0.00119

TABLE 15 - DETECTED WETLAND SEDIMENT CONCENTRATIONS EXCEEDING EXTENT EVALUATION COMPARISON VALUES

Sample Location	Sample Depth (ft)	Chemical of Interest	Concentration (mg/kg)	Extent Evaluation Comparison Value ⁽¹⁾ (mg/kg)
NF4SE13	0-0.5	4,4'-DDT	0.00254J+	0.00119
		Arsenic	12.8	8.66
		Copper	35.7	34
		Lead	64.7	46.7
		Nickel	27.7	20.9
		Zinc	903	280
NG1SE14	0-0.5	Nickel	23.8	20.9
NG2SE15	0-0.5	4,4'-DDT	0.00189J	0.00119
NG4SE17	0-0.5	Dieldrin	0.00266	0.000715
		Zinc	255	280
2WSED3	0-0.5	Acenaphthylene	0.346J	0.044
		Anthracene	0.241J	0.0853
		Benzo(a)pyrene	0.631J	0.43
		Chrysene	2.73	0.384
		Dibenz(a,h)anthracene	2.83	0.0634
		Pyrene	0.729J	0.665
2WSED4	0-0.5	4,4'-DDE	0.00256J	0.00207
		Acenaphthylene	0.545J	0.044
		Anthracene	0.334J	0.0853
		Benzo(a)pyrene	0.972	0.43
		Chrysene	4.05	0.384
		Dibenz(a,h)anthracene	2.91	0.0634
		Dieldrin	0.00211J	0.000715
		Nickel	21.3	20.9
Pyrene	1.18	0.665		
2WSED5	0-0.5	Acenaphthylene	0.139J	0.044
		Dibenz(a,h)anthracene	1.83	0.0634

TABLE 15 - DETECTED WETLAND SEDIMENT CONCENTRATIONS EXCEEDING EXTENT EVALUATION COMPARISON VALUES

Sample Location	Sample Depth (ft)	Chemical of Interest	Concentration (mg/kg)	Extent Evaluation Comparison Value ⁽¹⁾ (mg/kg)
2WSED9	0-0.5	4,4'-DDT	0.00206J	0.00119
		Dibenz(a,h)anthracene	0.129	0.0634
2WSED10	0-0.5	4,4'-DDT	0.0015J	0.00119
2WSED12	0-0.5	4,4'-DDT	0.00212J	0.00119
2WSED15	0-0.5	Chrysene	0.39J	0.384
		Copper	49	34
		Lead	50	46.7
		Zinc	539	280
2WSED17	0-0.5	Acenaphthene	0.133	0.016
		Anthracene	0.257	0.0853
		Benzo(a)anthracene	0.724	0.261
		Benzo(a)pyrene	0.618	0.43
		Chrysene	0.743	0.384
		Dibenz(a,h)anthracene	0.312	0.0634
		Fluoranthene	1.43	0.6
		Fluorene	0.139	0.019
		Lead	237	46.7
		Phenanthrene	1.18	0.24
		Pyrene	1.34	0.665
Zinc	404	280		
3WSED9	0-0.5	Zinc	319 J	280

Notes:

(1) Extent Evaluation Comparison Values from Table 14.

(2) Data Qualifiers: J = estimated value; J- = estimated value, biased low; J+ = estimated value, biased high.

**TABLE 16 - DETECTED WETLAND SURFACE WATER CONCENTRATIONS
EXCEEDING EXTENT EVALUATION COMPARISON VALUES**

Sample Location	Chemical of Interest	Total or Dissolved	Concentration (mg/L)	Extent Evaluation Comparison Value⁽¹⁾ (mg/L)
2WSW1	Acrolein	Total	0.00929J	0.005
	Copper	Dissolved	0.011J	0.0036
	Mercury	Total	0.00004J	0.000025
2WSW2	Copper	Dissolved	0.0053J	0.0036
	Mercury	Dissolved	0.00011J	0.000025
		Total	0.00007J	0.000025
2WSW6	Copper	Dissolved	0.0068J	0.0036
	Manganese	Total	0.34	0.1
		Dissolved	0.33	0.1

Notes:

(1) Extent Evaluation Comparison Values from Table 4.

(2) Data Qualifier: J = estimated value.

**TABLE 17 - DETECTED POND SEDIMENT CONCENTRATIONS
EXCEEDING EXTENT EVALUATION COMPARISON VALUES**

Sample Location	Chemical of Interest	Concentration (mg/kg)	Extent Evaluation Comparison Value⁽¹⁾ (mg/kg)
SPSE01	Zinc	614	280
SPSE02	Zinc	813	280
SPSE03	4,4'-DDT	0.00157J	0.00119
	Zinc	999	280

Notes:

(1) Extent Evaluation Comparison Values from Table 14.

(2) Data Qualifier: J = estimated value.

**TABLE 18 - DETECTED POND SURFACE WATER CONCENTRATIONS
EXCEEDING EXTENT EVALUATION COMPARISON VALUES**

Sample Location	Chemical of Interest	Total or Dissolved	Concentration (mg/L)	Extent Evaluation Comparison Value⁽¹⁾ (mg/L)
FWPSW01	Arsenic	Total	0.013J	0.0014
	Silver	Dissolved	0.0027J	0.00019
	Thallium	Total	0.0077J	0.00047
FWPSW02	Arsenic	Total	0.012J	0.0014
	Silver	Dissolved	0.0021J	0.00019
FWPSW03	Silver	Dissolved	0.0029J	0.00019
	Thallium	Total	0.0062J	0.00047
SPSW01	Manganese	Total	1.29	0.1
	Manganese	Dissolved	1.06	0.1
	Silver	Dissolved	0.00095J	0.00019
	Thallium	Dissolved	0.0014J	0.00047
SPSW02	Manganese	Total	1.44	0.1
	Manganese	Dissolved	0.89	0.1
	Silver	Dissolved	0.00094J	0.00019
	Thallium	Dissolved	0.0032J	0.00047
SPSW03	Manganese	Total	0.82	0.1
	Manganese	Dissolved	0.74	0.1
	Silver	Dissolved	0.0014J	0.00019
	Thallium	Dissolved	0.0019J	0.00047

Notes:

(1) Extent Evaluation Comparison Values from Table 4.

(2) Data Qualifier: J = estimated value.

**TABLE 19 - DETECTED CONCENTRATIONS IN SBMW29-01
AND SBMW30-01 SOIL SAMPLES**

Sample Location	Sample Depth (ft)	Chemical of Interest	Concentration (mg/kg)
SBMW29-01	12.5-13.5	1,1,1-Trichloroethane	3750
		1,1-Dichloroethane	67.3J
		1,1-Dichloroethene	128J
		1,2,3-Trichloropropane	471
		1,2-Dichloroethane	595
		Benzene	84.3J
		Benzo(b)fluoranthene	0.017J
		Fluoranthene	0.03J
		Fluorene	0.013J
		Isopropylbenzene (Cumene)	93.7J
		Methylene chloride	1130
		Naphthalene	102J
		Phenanthrene	0.057J
		Tetrachloroethene	4340
		Toluene	108J
		Trichloroethene	2150
SBMW30-01	33.6-34.1	1,1,1-Trichloroethane	4590
		1,2,3-Trichloropropane	1220
		2-Methylnaphthalene	52.8
		Acenaphthene	18.9J
		Acenaphthylene	11.5
		Aldrin	0.037
		Anthracene	18
		Benzo(a)anthracene	31.9
		Benzo(a)pyrene	18.4
		Benzo(b)fluoranthene	37.7
		Benzo(g,h,i)perylene	20.4
		Biphenyl	12.1J
		Carbazole	15.2
		Chrysene	36.8
		Dibenz(a,h)anthracene	8.93
		Dibenzofuran	29.9
		Endosulfan II	0.025J
		Endrin aldehyde	0.049J
		Fluoranthene	86.1
		Fluorene	44.1
		gamma-BHC (Lindane)	0.00796J
		Heptachlor epoxide	0.167J
		Indeno(1,2,3-cd)pyrene	19.5
		Naphthalene	317J
		Phenanthrene	172
		Pyrene	80
		Tetrachloroethene	8420
Toluene	170J		
Trichloroethene	6610		

Notes:

(1) Data qualifier: J = estimated value.

**TABLE 20 - MONITORING WELL/PIEZOMETER
CONSTRUCTION INFORMATION**

Well Name	Top of Casing (TOC) Elevation (Feet Above Mean Sea Level) ⁽¹⁾	Ground Surface Elevation (Feet Above Mean Sea Level) ⁽¹⁾	Total Boring Depth (Feet below Ground Surface)	Monitoring Well/Piezometer Screened Interval (Feet below Ground Surface)
Zone A				
ND2MW01	5.09	1.9	17.0	5.0-15.0
ND3MW02	6.41	3.7	22.0	11.5-21.5
ND4MW03	6.20	3.2	20.0	7.5-17.5
NE1MW04	4.90	2.1	17.0	6.5-16.5
NE3MW05	6.53	3.3	22.0	5-15.5
NF2MW06	5.35	2.2	20.0	6.0-16.0
SB4MW07	7.57	4.6	20.0	9.5-19.5
SE1MW08	7.54	4.4	20.0	8.5-18.5
SE6MW09	7.66	4.7	20.0	9.5-19.5
SF5MW10	8.01	5.0	20.0	9.0-19.0
SF6MW11	8.11	5.0	20.0	8.0-18.0
SF7MW12	7.96	4.7	20.0	8.5-18.5
SG2MW13	7.71	4.5	22.0	6.0-16.0
SH7MW14	8.10	5.2	22.0	10.0-20.0
SJ1MW15	5.61	2.5	25.0	10.0-20.0
SJ7MW16	7.19	4.7	25.0	12.5-22.5
SL8MW17	5.87	2.9	33.0	15.0-25.0
NB4MW18	4.96	2.5	20.0	7.5-17.5
NG3MW19	5.08	2.2	17.0	4.0-13.5
OMW20	4.88	1.6	17.5	6.0-15.5
OMW21	5.73	2.4	20.0	8.0-18.0
SA4MW22	7.79	5.5	15.0	4.5-14.5
NC2MW28	4.76	1.8	15.0	5-14.5
ND3MW29	5.33	2.9	17.5	7.0-17.0
NB4PZ01	NM ⁽²⁾	2.3	22.0	9.0-19.0
NC3PZ02	NM	2.9	28.0	12.5-22.5
ND1PZ03	NM	2.2	18.0	5.5-15.5
ND3PZ04	NM	2.4	20.0	7.0-17.0
NF1PZ05	NM	2.2	18.0	8.0-18.0
NF3PZ06	NM	2.5	16.0	3-13
SA4PZ07	NM	5.4	24.0	12-22
SD3PZ08	NM	5.6	28.0	12-22

**TABLE 20 - MONITORING WELL/PIEZOMETER
CONSTRUCTION INFORMATION**

Well Name	Top of Casing (TOC) Elevation (Feet Above Mean Sea Level)⁽¹⁾	Ground Surface Elevation (Feet Above Mean Sea Level)⁽¹⁾	Total Boring Depth (Feet below Ground Surface)	Monitoring Well/Piezometer Screened Interval (Feet below Ground Surface)
Zone B				
NC2B23B	NA ⁽³⁾	2.0	40.0	NA
ND4MW24B	5.70	3.5	34.0	21.5-26.5
NG3MW25B	4.91	2.2	35.0	17.0-27.0
OB26B	NA	1.6	40.0	NA
OMW27B	5.45	2.8	30.0	24.5-27
NE3MW30B	6.70	3.5	35.5	25-35
NE4MW31B	6.01	3.0	45.0	18-28
Zone C				
NG3CPT1	5.79	2.1	73.0	63-73
NE4CPT2	6.77	3.2	73.0	63-73
NC2CPT3	5.36	1.7	69.0	59-69
OCPT4	6.38	2.7	73.0	63-73
OCPT5	5.32	1.5	80.0	59-64,69-74
NE4MW32C	6.31	3.2	80.0	64-74

Notes:

- (1) Mean Sea Level - NGVD 1929.
- (2) NM = Not measured. Temporary piezometer at this location.
- (3) NA = Not Applicable. Well not constructed in this boring - Zone B not present.

**TABLE 21 -
SLUG TEST RESULTS**

Well Number	Test Type	Water-Bearing Unit Type	Water-Bearing Zone	Water-Bearing Unit Thickness (ft)	Hydraulic Conductivity (cm/sec)
ND4MW03	Slug	Confined	A	13	8×10^{-5}
NE1MW04	Slug	Confined	A	12	4×10^{-5}
SJ1MW15	Slug	Confined	A	12.5	7×10^{-5}
ND4MW24B	Slug	Confined	B	5	1×10^{-4}
NG3MW25B	Slug	Confined	B	16	5×10^{-4}
OMW27B	Slug	Confined	B	3	2×10^{-5}

TABLE 22 - WATER LEVEL MEASUREMENTS

Well ID	Ground Surface Elevation (ft AMSL ²)	Total Boring Depth (ft BGS ²)	Screened Interval (ft BGS ²)	Date	TOC ¹ Elevation (ft AMSL ²)	Depth to Water (ft BTOC ¹)	Water Elevation (ft AMSL ²)
ND2MW01	1.9	17.0	5.0-15.0	8/4/2006	5.09	3.94	1.15
				10/5/2006	5.09	3.95	1.14
				6/6/2007	5.09	4.23	0.86
				9/6/2007	5.09	4.02	1.07
				11/7/2007	5.09	4.31	0.78
				12/3/2007	5.09	4.13	0.96
				6/17/2008	5.09	5.99	-0.90
ND3MW02	3.7	22.0	11.5-21.5	8/4/2006	6.41	4.21	2.20
				10/5/2006	6.41	4.27	2.14
				6/6/2007	6.41	4.59	1.82
				9/6/2007	6.41	4.27	2.14
				11/7/2007	6.41	4.93	1.48
				12/3/2007	6.41	4.46	1.95
				6/17/2008	6.41	6.67	-0.26
ND4MW03	3.2	20.0	7.5-17.5	8/4/2006	6.20	4.11	2.09
				10/5/2006	6.20	4.13	2.07
				6/6/2007	6.20	4.42	1.78
				9/6/2007	6.20	3.84	2.36
				11/7/2007	6.20	4.47	1.73
				12/3/2007	6.20	3.73	2.47
				6/17/2008	6.20	6.31	-0.11
NE1MW04	2.1	17.0	6.5-16.5	8/4/2006	4.90	4.81	0.09
				10/5/2006	4.90	3.87	1.03
				6/6/2007	4.90	4.12	0.78
				9/6/2007	4.90	3.93	0.97
				11/7/2007	4.90	3.62	1.28
				12/3/2007	4.90	3.47	1.43
				6/17/2008	4.90	5.43	-0.53
NE3MW05	3.3	22.0	5-15.5	8/4/2006	6.53	3.60	2.93
				10/5/2006	6.53	3.66	2.87
				6/6/2007	6.53	3.92	2.61
				9/6/2007	6.53	3.63	2.90
				11/7/2007	6.53	5.21	1.32
				12/3/2007	6.53	5.03	1.50
				6/17/2008	6.53	6.33	0.20
NF2MW06	2.2	20.0	6.0-16.0	8/4/2006	5.35	3.71	1.64
				10/5/2006	5.35	3.79	1.56
				6/6/2007	5.35	4.06	1.29
				9/6/2007	5.35	3.89	1.46
				11/7/2007	5.35	3.57	1.78
				12/3/2007	5.35	3.27	2.08
				6/17/2008	5.35	4.93	0.42
SB4MW07	4.6	20.0	9.5-19.5	8/4/2006	7.57	6.60	0.97
				10/5/2006	7.57	5.65	1.92
				6/6/2007	7.57	5.38	2.19
				9/6/2007	7.57	5.57	2.00
				11/7/2007	7.57	6.06	1.51
				12/3/2007	7.57	6.14	1.43
				6/17/2008	7.57	5.92	1.65
SE1MW08	4.4	20.0	8.5-18.5	8/4/2006	7.54	5.19	2.35
				10/5/2006	7.54	5.36	2.18
				6/6/2007	7.54	5.37	2.17
				9/6/2007	7.54	5.31	2.23
				11/7/2007	7.54	6.03	1.51
				12/3/2007	7.54	5.21	2.33
				6/17/2008	7.54	6.81	0.73

TABLE 22 - WATER LEVEL MEASUREMENTS

Well ID	Ground Surface Elevation (ft AMSL ²)	Total Boring Depth (ft BGS ²)	Screened Interval (ft BGS ²)	Date	TOC ¹ Elevation (ft AMSL ²)	Depth to Water (ft BTOC ¹)	Water Elevation (ft AMSL ²)
SE6MW09	4.7	20.0	9.5-19.5	8/4/2006	7.66	6.04	1.62
				10/5/2006	7.66	5.84	1.82
				6/6/2007	7.66	5.82	1.84
				9/6/2007	7.66	5.72	1.94
				11/7/2007	7.66	6.09	1.57
				12/3/2007	7.66	5.74	1.92
				6/17/2008	7.66	6.43	1.23
SF5MW10	5.0	20.0	9.0-19.0	8/4/2006	8.01	5.88	2.13
				10/5/2006	8.01	6.01	2.00
				6/6/2007	8.01	5.79	2.22
				9/6/2007	8.01	5.75	2.26
				11/7/2007	8.01	5.97	2.04
				12/3/2007	8.01	6.01	2.00
				6/17/2008	8.01	7.03	0.98
SF6MW11	5.0	20.0	8.0-18.0	8/4/2006	8.11	6.62	1.49
				10/5/2006	8.11	6.43	1.68
				6/6/2007	8.11	6.37	1.74
				9/6/2007	8.11	6.34	1.77
				11/7/2007	8.11	6.71	1.40
				12/3/2007	8.11	6.39	1.72
				6/17/2008	8.11	6.97	1.14
SF7MW12	4.7	20.0	8.5-18.5	8/4/2006	7.96	6.41	1.55
				10/5/2006	7.96	6.15	1.81
				6/6/2007	7.96	6.52	1.44
				9/6/2007	7.96	6.59	1.37
				11/7/2007	7.96	6.64	1.32
				12/3/2007	7.96	6.44	1.52
				6/17/2008	7.96	6.76	1.20
SG2MW13	4.5	22.0	6.0-16.0	8/4/2006	7.71	5.65	2.06
				10/5/2006	7.71	5.96	1.75
				6/6/2007	7.71	5.62	2.09
				9/6/2007	7.71	5.56	2.15
				11/7/2007	7.71	6.68	1.03
				12/3/2007	7.71	6.07	1.64
				6/17/2008	7.71	7.18	0.53
SH7MW14	5.2	22.0	10.0-20.0	8/4/2006	8.10	6.41	1.69
				10/5/2006	8.10	6.36	1.74
				6/6/2007	8.10	6.02	2.08
				9/6/2007	8.10	6.21	1.89
				11/7/2007	8.10	6.74	1.36
				12/3/2007	8.10	6.43	1.67
				6/17/2008	8.10	6.84	1.26
SJ1MW15	2.5	25.0	10.0-20.0	8/4/2006	5.61	4.17	1.44
				10/5/2006	5.61	4.35	1.26
				6/6/2007	5.61	4.09	1.52
				9/6/2007	5.61	3.47	2.14
				11/7/2007	5.61	3.58	2.03
				12/3/2007	5.61	3.47	2.14
				6/17/2008	5.61	5.47	0.14
SJ7MW16	4.7	25.0	12.5-22.5	8/4/2006	7.19	5.81	1.38
				10/5/2006	7.19	5.49	1.70
				6/6/2007	7.19	5.16	2.03
				9/6/2007	7.19	5.23	1.96
				11/7/2007	7.19	5.88	1.31
				12/3/2007	7.19	6.51	0.68
				6/17/2008	7.19	5.68	1.51

TABLE 22 - WATER LEVEL MEASUREMENTS

Well ID	Ground Surface Elevation (ft AMSL ²)	Total Boring Depth (ft BGS ³)	Screened Interval (ft BGS ³)	Date	TOC ¹ Elevation (ft AMSL ²)	Depth to Water (ft BTOC ⁴)	Water Elevation (ft AMSL ²)
SL8MW17	2.9	33.0	15.0-25.0	8/4/2006	5.87	4.51	1.36
				10/5/2006	5.87	4.21	1.66
				6/6/2007	5.87	3.93	1.94
				9/6/2007	5.87	4.07	1.80
				11/7/2007	5.87	4.43	1.44
				12/3/2007	5.87	4.81	1.06
				6/17/2008	5.87	4.51	1.36
NB4MW18	2.5	20.0	7.5-17.5	6/6/2007	4.96	16.32	-11.36
				9/6/2007	4.96	3.17	1.79
				11/7/2007	4.96	4.19	0.77
				12/3/2007	4.96	3.68	1.28
				6/17/2008	4.96	5.89	-0.93
NG3MW19	2.2	17.0	4.0-13.5	6/6/2007	5.08	3.58	1.50
				9/6/2007	5.08	3.29	1.79
				11/7/2007	5.08	3.77	1.31
				12/3/2007	5.08	3.29	1.79
				6/17/2008	5.08	4.38	0.70
OMW20	1.6	17.5	6.0-15.5	6/6/2007	4.88	4.16	0.72
				9/6/2007	4.88	3.76	1.12
				11/7/2007	4.88	3.01	1.87
				12/3/2007	4.88	2.84	2.04
				6/17/2008	4.88	4.16	0.72
OMW21	2.4	20.0	8.0-18.0	6/6/2007	5.73	4.17	1.56
				9/6/2007	5.73	3.96	1.77
				11/7/2007	5.73	5.07	0.66
				12/3/2007	5.73	4.86	0.87
				6/17/2008	5.73	6.12	-0.39
SA4MW22	5.5	15.0	4.5-14.5	6/6/2007	7.79	6.27	1.52
				9/6/2007	7.79	6.34	1.45
				11/7/2007	7.79	6.57	1.22
				12/3/2007	7.79	6.72	1.07
				6/17/2008	7.79	6.86	0.93
ND4MW24B	3.5	34.0	21.5-26.5	6/6/2007	5.70	3.81	1.89
				9/6/2007	5.70	3.41	2.29
				11/7/2007	5.70	3.78	1.92
				12/3/2007	5.70	3.32	2.38
				6/17/2008	5.70	5.48	0.22
				7/30/2008	5.70	4.22	1.48
NG3MW25B	2.2	35.0	17.0-27.0	6/6/2007	4.91	3.17	1.74
				9/6/2007	4.91	3.01	1.90
				11/7/2007	4.91	3.15	1.76
				12/3/2007	4.91	2.94	1.97
				6/17/2008	4.91	3.69	1.22
				7/30/2008	4.91	3.26	1.65
OMW27B	2.8	30.0	24.5-27	6/6/2007	5.45	3.26	2.19
				9/6/2007	5.45	3.04	2.41
				11/7/2007	5.45	4.34	1.11
				12/3/2007	5.45	4.17	1.28
				6/17/2008	5.45	5.47	-0.02
				7/30/2008	5.45	4.27	1.18
NC2MW28	1.8	15.0	5-14.5	6/6/2007	4.76	2.83	1.93
				9/6/2007	4.76	2.42	2.34
				11/7/2007	4.76	2.86	1.90
				12/3/2007	4.76	2.51	2.25
				6/17/2008	4.76	4.27	0.49

TABLE 22 - WATER LEVEL MEASUREMENTS

Well ID	Ground Surface Elevation (ft AMSL ²)	Total Boring Depth (ft BGS ³)	Screened Interval (ft BGS ³)	Date	TOC ¹ Elevation (ft AMSL ²)	Depth to Water (ft BTOC ⁴)	Water Elevation (ft AMSL ²)
ND3MW29	2.9	17.5	7.0-17.0	6/6/2007	5.33	3.91	1.42
				9/6/2007	5.33	3.58	1.75
				11/7/2007	5.33	4.38	0.95
				12/3/2007	5.33	3.27	2.06
				6/17/2008	5.33	5.63	-0.30
NE3MW30B	3.5	35.5	25.0-35.0	12/3/2007	6.70	4.78	1.92
				6/17/2008	6.70	NM	NM
				7/30/2008	6.70	5.08	1.62
NE4MW31B	3.0	45.0	18.0-28.0	6/17/2008	6.01	5.04	0.97
				7/30/2008	6.01	4.59	1.42
NE4MW32C	3.2	80.0	64.0-74.0	6/17/2008	6.31	8.62	-2.31
				7/30/2008	6.31	7.29	-0.98
				9/29/2008	6.31	7.48	-1.17
				1/13/2009	6.31	7.22	-0.91
NG3CPT1	5.8	73.0	63.0-73.0	6/9/2008	5.79	9.82	-4.03
				6/17/2008	5.79	9.47	-3.68
				7/30/2008	5.79	9.41	-3.62
				9/29/2008	5.79	6.09	-0.30
				1/13/2009	5.79	6.93	-1.14
NE4CPT2	6.8	73.0	63.0-73.0	6/9/2008	6.77	9.99	-3.22
				6/17/2008	6.77	10.32	-3.55
				7/30/2008	6.77	10.31	-3.54
				9/29/2008	6.77	9.88	-3.11
				1/13/2009	6.77	9.86	-3.09
NC2CPT3	5.4	69.0	59.0-69.0	6/9/2008	5.36	11.39	-6.03
				6/17/2008	5.36	11.48	-6.12
				7/30/2008	5.36	11.30	-5.94
				9/29/2008	5.36	11.29	-5.93
				1/13/2009	5.36	8.72	-3.36
OCPT4	6.4	73.0	63.0-73.0	6/9/2008	6.38	12.25	-5.87
				6/17/2008	6.38	12.46	-6.08
				7/30/2008	6.38	12.93	-6.55
				9/29/2008	6.38	12.97	-6.59
				1/13/2009	6.38	13.16	-6.78
OCPT5	1.5	80.0	59-64,69-74	1/13/2009	5.32	12.72	-7.40
MW-1	4.9	20.0	Not Available	8/4/2006	6.75	4.12	2.63
				10/5/2006	6.75	4.38	2.37
				6/6/2007	6.75	4.17	2.58
				9/6/2007	6.75	4.21	2.54
				11/7/2007	6.75	NM	NM
				12/3/2007	6.75	NM	NM
				6/17/2008	6.75	5.39	1.36
				8/4/2006	5.88	4.79	1.09
MW-2	4.5	15.0	Not Available	10/5/2006	5.88	3.85	2.03
				6/6/2007	5.88	3.58	2.30
				9/6/2007	5.88	3.64	2.24
				11/7/2007	5.88	NM	NM
				12/3/2007	5.88	NM	NM
				6/17/2008	5.88	5.23	0.65
				8/4/2006	7.23	5.74	1.49
				10/5/2006	7.23	5.58	1.65
MW-3	4.5	16.0	Not Available	6/6/2007	7.23	5.34	1.89
				9/6/2007	7.23	5.41	1.82
				11/7/2007	7.23	NM	NM
				12/3/2007	7.23	NM	NM
				6/17/2008	7.23	6.34	0.89
				8/4/2006	5.15	2.54	2.61
				10/5/2006	5.15	2.64	2.51
HMW-1	3.3	18.0	8.0-18.0	6/6/2007	5.15	2.89	2.26
				9/6/2007	5.15	2.61	2.54
				11/7/2007	5.15	NM	NM
				12/3/2007	5.15	NM	NM
				12/3/2007	5.15	NM	NM

TABLE 22 - WATER LEVEL MEASUREMENTS

Well ID	Ground Surface Elevation (ft AMSL ²)	Total Boring Depth (ft BGS ³)	Screened Interval (ft BGS ³)	Date	TOC ¹ Elevation (ft AMSL ²)	Depth to Water (ft BTOC ⁴)	Water Elevation (ft AMSL ²)
HMW-2	2.6	18.0	8.0-18.0	8/4/2006	4.69	3.59	1.10
				10/5/2006	4.69	3.71	0.98
				6/6/2007	4.69	3.93	0.76
				9/6/2007	4.69	3.63	1.06
				11/7/2007	4.69	NM	NM
				12/3/2007	4.69	NM	NM
HMW-3	3.2	18.0	8.0-18.0	8/4/2006	5.20	3.48	1.72
				10/5/2006	5.20	3.49	1.71
				6/6/2007	5.20	3.78	1.42
				9/6/2007	5.20	3.54	1.66
				11/7/2007	5.20	NM	NM
				12/3/2007	5.20	NM	NM
BM-1	Not applicable - Staff Gauge	Not applicable - Staff Gauge	Not applicable - Staff Gauge	10/5/2006	3.53	1.94	1.59
				9/6/2007	3.53	1.55	1.98
				11/7/2007	3.53	1.61	1.92
				12/3/2007	3.53	1.49	2.04
				6/17/2008	3.53	0.73 ⁶	2.80 ⁶
				7/30/2008	3.53	0.51 ⁶	3.02 ⁶
BM-2	Not applicable - Staff Gauge	Not applicable - Staff Gauge	Not applicable - Staff Gauge	10/5/2006	3.30	1.76	1.54
				9/6/2007	3.30	1.35	1.95
				11/7/2007	3.30	1.42	1.88
				12/3/2007	3.30	1.29	2.01
				6/17/2008	3.30	1.42	1.88
				7/30/2008	3.30	1.45	1.85
BM-3	Not applicable - Staff Gauge	Not applicable - Staff Gauge	Not applicable - Staff Gauge	10/5/2006	5.10	3.41	1.69
				9/6/2007	5.10	3.60	1.50
				11/7/2007	5.10	NM	NM
				12/3/2007	5.10	4.60	0.50
				6/17/2008	5.10	3.61	1.49

Notes:

¹ TOC = Top of PVC Well Casing.

² AMSL = Above Mean Sea Level (NGVD 29).

³BGS = Below Ground Surface

⁴ BTOC = Below TOC.

⁵NM = not measured.

⁶Settlement/damage to BM-1 staff gauge occurred after 12/07.

TABLE 23 - GROUNDWATER EXTENT EVALUATION COMPARISON VALUES⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 18 of RI/FS Work Plan ⁽²⁾			Extent Evaluation Comparison Value
	^{GW} GW _{Class 3} ⁽³⁾	^{Air} GW _{Inh-V} ⁽⁴⁾	TCEQ Ecological Benchmark for Water ⁽⁵⁾	
METALS				
Aluminum	7.3E+03	---	---	7.3E+03
Antimony	6.0E-01	---	---	6.0E-01
Arsenic	1.0E+00	---	7.8E-02	7.8E-02
Barium	2.0E+02	---	2.5E+01	2.5E+01
Beryllium	4.0E-01	---	---	4.0E-01
Boron	1.5E+03	---	---	1.5E+03
Cadmium	5.0E-01	---	1.0E-02	1.0E-02
Chromium	1.0E+01	---	1.0E-01	1.0E-01
Chromium (VI)	1.0E+01	---	5.0E-02	5.0E-02
Cobalt	4.4E+02	---	---	4.4E+02
Copper	1.3E+02	---	3.6E-03	3.6E-03
Ferric Iron	---	---	---	NV
Iron	---	---	---	NV
Lead	1.5E+00	---	5.3E-03	5.3E-03
Lithium	1.5E+02	---	---	1.5E+02
Manganese	1.0E+03	---	---	1.0E+03
Mercury	2.0E-01	1.3E+00	1.1E-03	1.1E-03
Molybdenum	3.7E+01	---	---	3.7E+01
Nickel	1.5E+02	---	1.3E-02	1.3E-02
Selenium	5.0E+00	---	1.4E-01	1.4E-01
Silver	3.7E+01	---	1.9E-04	1.9E-04
Strontium	4.4E+03	---	---	4.4E+03
Thallium	2.0E-01	---	2.1E-02	2.1E-02
Tin	4.4E+03	---	---	4.4E+03
Titanium	3.7E+06	---	---	3.7E+06
Vanadium	5.1E+01	---	---	5.1E+01
Zinc	2.2E+03	---	8.4E-02	8.4E-02
PESTICIDES				
4,4'-DDD	8.5E-01	---	2.5E-05	2.5E-05
4,4'-DDE	6.0E-01	---	1.4E-04	1.4E-04
4,4'-DDT	6.0E-01	1.4E+02	1.0E-06	1.0E-06
Aldrin	1.2E-02	9.6E-01	1.3E-04	1.3E-04
alpha-BHC	3.2E-02	3.3E+01	2.5E-02	2.5E-02
alpha-Chlordane	5.8E-01	3.3E+01	---	5.8E-01
beta-BHC	1.1E-01	2.5E+02	---	1.1E-01
delta-BHC	1.1E-01	7.9E+01	---	1.1E-01
Dieldrin	1.3E-02	2.8E+01	2.0E-06	2.0E-06
Endosulfan I	1.5E+01	1.6E+02	9.0E-06	9.0E-06
Endosulfan II	4.4E+01	---	9.0E-06	9.0E-06
Endosulfan sulfate	4.4E+01	---	9.0E-06	9.0E-06
Endrin	2.0E-01	5.9E+02	2.0E-06	2.0E-06
Endrin aldehyde	2.2E+00	---	---	2.2E+00
Endrin ketone	2.2E+00	5.1E+02	---	2.2E+00
gamma-BHC (Lindane)	2.0E-02	1.5E+03	1.6E-05	1.6E-05
gamma-Chlordane	5.8E-01	3.3E+01	---	5.8E-01
Heptachlor	4.0E-02	1.4E+00	4.0E-06	4.0E-06
Heptachlor epoxide	2.0E-02	2.6E+01	3.6E-06	3.6E-06
Methoxychlor	4.0E+00	6.3E+03	3.0E-05	3.0E-05
Toxaphene	3.0E-01	3.9E+02	2.0E-07	2.0E-07

TABLE 23 - GROUNDWATER EXTENT EVALUATION COMPARISON VALUES⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 18 of RI/FS Work Plan ⁽²⁾			Extent Evaluation Comparison Value
	^{GW} GW _{Class 3} ⁽³⁾	^{Air} GW _{Inh-V} ⁽⁴⁾	TCEQ Ecological Benchmark for Water ⁽⁵⁾	
PCBs	5.0E-02	6.4E-01	3.0E-05	3.0E-05
Aroclor-1016	---	---	---	NV
Aroclor-1221	---	---	---	NV
Aroclor-1232	---	---	---	NV
Aroclor-1242	---	---	---	NV
Aroclor-1248	---	---	---	NV
Aroclor-1254	---	---	---	NV
Aroclor-1260	---	---	---	NV
VOCs				
1,1,1,2-Tetrachloroethane	7.9E+00	2.4E+01	---	7.9E+00
1,1,1-Trichloroethane	2.0E+01	7.2E+03	1.6E+00	1.6E+00
1,1,2,2-Tetrachloroethane	1.0E+00	9.6E+00	4.5E-01	4.5E-01
1,1,2-Trichloroethane	5.0E-01	1.7E+01	2.8E-01	2.8E-01
1,1-Dichloroethane	1.5E+03	1.3E+03	---	1.3E+03
1,1-Dichloroethene	7.0E-01	3.0E+02	1.3E+01	7.0E-01
1,1-Dichloropropene	2.0E+00	4.2E+00	---	2.0E+00
1,2,3-Trichloropropane	2.9E-02	1.2E+03	---	2.9E-02
1,2,4-Trichlorobenzene	7.0E+00	2.8E+03	2.2E-02	2.2E-02
1,2,4-Trimethylbenzene	3.7E+02	3.4E+01	2.2E-01	2.2E-01
1,2-Dibromo-3-chloropropane	2.0E-02	5.7E+00	---	2.0E-02
1,2-Dibromoethane	5.0E-03	1.2E+00	---	5.0E-03
1,2-Dichlorobenzene	6.0E+01	2.1E+02	9.9E-02	9.9E-02
1,2-Dichloroethane	5.0E-01	7.2E+00	5.7E+00	5.0E-01
1,2-Dichloroethene(Total)	---	---	6.8E-01	6.8E-01
1,2-Dichloropropane	5.0E-01	2.1E+01	2.4E+00	5.0E-01
1,3,5-Trimethylbenzene	3.7E+02	2.3E+01	---	2.3E+01
1,3-Dichlorobenzene	2.2E+02	3.4E+01	1.4E-01	1.4E-01
1,3-Dichloropropane	2.0E+00	5.5E+01	---	2.0E+00
1,4-Dichlorobenzene	7.5E+00	4.7E+03	9.9E-02	9.9E-02
2,2-Dichloropropane	3.0E+00	1.0E+01	---	3.0E+00
2-Butanone	4.4E+03	4.9E+05	---	4.4E+03
2-Chloroethylvinyl ether	1.9E-01	3.5E+00	---	1.9E-01
2-Chlorotoluene	1.5E+02	1.4E+03	---	1.5E+02
2-Hexanone	4.4E+02	2.8E+02	---	2.8E+02
4-Chlorotoluene	5.1E+02	1.4E+00	---	1.4E+00
4-Isopropyltoluene	7.3E+02	8.3E+02	---	7.3E+02
4-Methyl-2-pentanone	5.8E+02	1.2E+05	6.2E+01	6.2E+01
Acetone	6.6E+03	4.6E+04	2.8E+02	2.8E+02
Acrolein	3.7E+00	1.3E+01	1.0E-02	1.0E-02
Acrylonitrile	3.8E-01	1.3E+01	2.9E-01	2.9E-01
Benzene	5.0E-01	3.9E+01	1.1E-01	1.1E-01

TABLE 23 - GROUNDWATER EXTENT EVALUATION COMPARISON VALUES⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 18 of RI/FS Work Plan ⁽²⁾			Extent Evaluation Comparison Value
	^{GW} GW _{Class 3} ⁽³⁾	^{Air} GW _{Inh-V} ⁽⁴⁾	TCEQ Ecological Benchmark for Water ⁽⁵⁾	
Bromobenzene	1.5E+02	6.8E+01	---	6.8E+01
Bromodichloromethane	3.3E+00	---	---	3.3E+00
Bromoform	2.6E+01	1.1E+03	1.2E+00	1.2E+00
Bromomethane	1.0E+01	8.3E+00	1.2E+00	1.2E+00
Butanol	7.3E+02	3.6E+04	---	7.3E+02
Carbon disulfide	7.3E+02	8.8E+02	---	7.3E+02
Carbon tetrachloride	5.0E-01	1.7E+00	1.5E+00	5.0E-01
Chlorobenzene	1.0E+01	2.1E+02	1.1E-01	1.1E-01
Chloroethane	2.9E+03	2.1E+04	---	2.9E+03
Chloroform	7.3E+01	4.3E+00	4.1E+00	4.1E+00
Chloromethane	1.6E+01	7.9E+00	1.4E+01	7.9E+00
cis-1,2-Dichloroethene	7.0E+00	2.9E+03	---	7.0E+00
cis-1,3-Dichloropropene	3.8E-01	4.2E+01	---	3.8E-01
Dibromochloromethane	2.4E+00	---	---	2.4E+00
Dibromomethane	2.7E+01	1.4E+02	---	2.7E+01
Dichlorodifluoromethane	1.5E+03	1.3E+02	---	1.3E+02
Ethylbenzene	7.0E+01	2.8E+03	2.5E-01	2.5E-01
Hexachlorobutadiene	2.6E+00	1.9E+00	3.2E-04	3.2E-04
Isopropylbenzene (Cumene)	7.3E+02	8.0E+02	---	7.3E+02
Methyl acetate	7.3E+03	2.4E+04	---	7.3E+03
Methyl iodide	1.0E+01	3.1E+01	---	1.0E+01
Methylcyclohexane	3.7E+04	2.6E+02	---	2.6E+02
Methylene chloride	5.0E-01	2.8E+02	5.4E+00	5.0E-01
Naphthalene	1.5E+02	5.7E+01	1.3E-01	1.3E-01
n-Butylbenzene	2.9E+02	6.6E+02	---	2.9E+02
n-Propylbenzene	2.9E+02	1.1E+03	---	2.9E+02
o-Xylene	1.0E+03	2.2E+04	---	1.0E+03
sec-Butylbenzene	2.9E+02	7.0E+02	---	2.9E+02
Styrene	1.0E+01	5.8E+03	4.6E-01	4.6E-01
tert-Butyl methyl ether (MTBE)	7.3E+01	8.8E+02	---	7.3E+01
tert-Butylbenzene	2.9E+02	4.5E+02	---	2.9E+02
Tetrachloroethene	5.0E-01	7.1E+01	1.5E+00	5.0E-01
Toluene	1.0E+02	1.4E+04	4.8E-01	4.8E-01
trans-1,2-Dichloroethene	1.0E+01	1.4E+02	---	1.0E+01
trans-1,3-Dichloropropene	2.0E+00	4.1E+01	---	2.0E+00
trans-1,4-Dichloro-2-butene	---	2.3E-01	---	2.3E-01
Trichloroethene	5.0E-01	3.5E+01	9.7E-01	5.0E-01
Trichlorofluoromethane	2.2E+03	7.4E+02	---	7.4E+02
Trichlorotrifluoroethane	2.2E+05	1.7E+03	---	1.7E+03
Vinyl acetate	7.3E+03	2.6E+03	---	2.6E+03
Vinyl chloride	2.0E-01	7.9E-01	---	2.0E-01
Xylene (total)	1.0E+03	3.0E+02	8.5E-01	8.5E-01

TABLE 23 - GROUNDWATER EXTENT EVALUATION COMPARISON VALUES⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 18 of RI/FS Work Plan ⁽²⁾			Extent Evaluation Comparison Value
	^{GW} GW _{Class 3} ⁽³⁾	^{Air} GW _{Inh-V} ⁽⁴⁾	TCEQ Ecological Benchmark for Water ⁽⁵⁾	
SVOCs				
1,2Diphenylhydrazine/Azobenzen	1.9E+00	1.5E+02	---	1.9E+00
2,4,5-Trichlorophenol	7.3E+02	8.2E+04	1.2E-02	1.2E-02
2,4,6-Trichlorophenol	7.3E+00	1.1E+04	6.1E-02	6.1E-02
2,4-Dichlorophenol	2.2E+01	9.8E+04	---	2.2E+01
2,4-Dimethylphenol	1.5E+02	3.0E+04	---	1.5E+02
2,4-Dinitrophenol	1.5E+01	---	1.3E+00	1.3E+00
2,4-Dinitrotoluene	3.0E-01	2.2E+02	---	3.0E-01
2,6-Dinitrotoluene	3.0E-01	5.7E+02	---	3.0E-01
2-Chloronaphthalene	5.8E+02	---	---	5.8E+02
2-Chlorophenol	3.7E+01	1.1E+04	2.7E-01	2.7E-01
2-Methylnaphthalene	2.9E+01	---	3.0E-02	3.0E-02
2-Nitroaniline	2.2E+00	7.2E+02	---	2.2E+00
2-Nitrophenol	1.5E+01	1.2E+04	1.5E+00	1.5E+00
3,3'-Dichlorobenzidine	4.5E-01	---	3.7E-02	3.7E-02
3-Nitroaniline	2.2E+00	1.3E+04	---	2.2E+00
4,6-Dinitro-2-methylphenol	7.3E-01	1.5E+03	---	7.3E-01
4-Bromophenyl phenyl ether	1.4E-02	3.4E-01	---	1.4E-02
4-Chloro-3-methylphenol	3.7E+01	1.1E+05	---	3.7E+01
4-Chloroaniline	2.9E+01	1.2E+04	---	2.9E+01
4-Chlorophenyl phenyl ether	1.4E-02	2.7E-01	---	1.4E-02
4-Nitroaniline	5.4E+00	1.3E+04	---	5.4E+00
4-Nitrophenol	1.5E+01	4.3E+03	3.6E-01	3.6E-01
Acenaphthene	4.4E+02	---	4.0E-02	4.0E-02
Acenaphthylene	4.4E+02	---	---	4.4E+02
Acetophenone	7.3E+02	2.5E+04	---	7.3E+02
Aniline	3.6E+01	2.0E+03	---	3.6E+01
Anthracene	2.2E+03	---	1.8E-04	1.8E-04
Atrazine (Aatrex)	3.0E-01	3.3E+04	---	3.0E-01
Benzaldehyde	7.3E+02	9.4E+02	---	7.3E+02
Benzidine	8.9E-04	1.4E+00	---	8.9E-04
Benzo(a)anthracene	2.8E-01	4.4E+02	---	2.8E-01
Benzo(a)pyrene	2.0E-02	8.4E+01	---	2.0E-02
Benzo(b)fluoranthene	2.8E-01	3.5E+02	---	2.8E-01
Benzo(g,h,i)perylene	2.2E+02	---	---	2.2E+02
Benzo(k)fluoranthene	2.8E+00	2.1E+04	---	2.8E+00
Benzoic acid	2.9E+04	1.9E+04	---	1.9E+04
Benzyl alcohol	3.7E+03	1.7E+05	---	3.7E+03
Biphenyl	3.7E+02	3.7E+01	---	3.7E+01

TABLE 23 - GROUNDWATER EXTENT EVALUATION COMPARISON VALUES⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 18 of RI/FS Work Plan ⁽²⁾			Extent Evaluation Comparison Value
	^{GW} GW _{Class 3} ⁽³⁾	^{Air} GW _{Inh-V} ⁽⁴⁾	TCEQ Ecological Benchmark for Water ⁽⁵⁾	
Bis(2-Chloroethoxy)methane	1.9E-01	1.7E+01	---	1.9E-01
Bis(2-Chloroethyl)ether	1.9E-01	2.0E+01	---	1.9E-01
Bis(2-Chloroisopropyl)ether	2.9E+00	1.9E+02	---	2.9E+00
Bis(2-Ethylhexyl)phthalate	6.0E-01	---	---	6.0E-01
Butyl benzyl phthalate	1.5E+03	2.2E+04	1.5E-01	1.5E-01
Caprolactam	3.7E+03	4.4E+03	---	3.7E+03
Carbazole	1.0E+01	---	---	1.0E+01
Chrysene	2.8E+01	1.3E+05	---	2.8E+01
Dibenz(a,h)anthracene	2.8E-02	2.3E+02	---	2.8E-02
Dibenzofuran	2.9E+01	---	6.5E-02	6.5E-02
Diethyl phthalate	5.8E+03	2.5E+04	4.4E-01	4.4E-01
Dimethyl phthalate	5.8E+03	1.9E+04	5.8E-01	5.8E-01
Di-n-butyl phthalate	7.3E+02	1.3E+04	5.0E-03	5.0E-03
Di-n-octyl phthalate	1.5E+02	1.8E+03	---	1.5E+02
Fluoranthene	2.9E+02	---	3.0E-03	3.0E-03
Fluorene	2.9E+02	---	5.0E-02	5.0E-02
Hexachlorobenzene	1.0E-01	1.2E+00	---	1.0E-01
Hexachlorocyclopentadiene	5.0E+00	9.8E-01	7.0E-05	7.0E-05
Hexachloroethane	7.3E+00	3.1E+02	9.4E-03	9.4E-03
Indeno(1,2,3-cd)pyrene	2.8E-01	2.0E+03	---	2.8E-01
Isophorone	2.2E+02	1.9E+04	6.5E-01	6.5E-01
Nitrobenzene	3.7E+00	1.1E+03	6.7E-02	6.7E-02
n-Nitrosodimethylamine	4.0E-03	4.4E+00	1.7E+02	4.0E-03
n-Nitrosodi-n-propylamine	2.9E-02	---	1.2E-01	2.9E-02
n-Nitrosodiphenylamine	4.2E+01	---	1.7E+02	4.2E+01
o-Cresol	3.7E+02	1.8E+04	5.1E-01	5.1E-01
Pentachlorophenol	1.0E-01	2.4E+03	9.6E-03	9.6E-03
Phenanthrene	2.2E+02	---	4.6E-03	4.6E-03
Phenol	2.2E+03	5.0E+04	2.8E+00	2.8E+00
Pyrene	2.2E+02	---	2.4E-04	2.4E-04
Pyridine	7.3E+00	4.0E+01	---	7.3E+00
Sulfate	---	---	---	NV
Chloride	---	---	---	NV
Total Dissolved Solids(TDS)	---	---	---	NV
Total Suspended Solids	---	---	---	NV
Total Organic Carbon	---	---	---	NV
Hardness	---	---	---	NV

Notes:

- All values in mg/L.
- Values from Table 18 of RI/FS Work Plan (updated to reflect changes from 2005 where applicable).
- ^{GW}GW_{Class 3}PCL = TCEQ Protective Concentration Level for Class 3 groundwater, commercial/industrial land use. April 2008.
- ^{Air}GW_{Inh-V}PCL = TCEQ Protective Concentration Level for inhalation of constituents in groundwater, 30 acre source area, commercial/industrial land use. April 2008.
- From Table 3-2 (Ecological Benchmarks for Water) of TCEQ "Guidance for Conducting Ecological Risk Assessments at Remediation Sites in Texas." Metals benchmarks are for dissolved concentrations, except for barium, mercury, selenium, and thallium.
- NV = No Preliminary Screening Value.

**TABLE 24 - DETECTED ZONE A GROUNDWATER CONCENTRATIONS
EXCEEDING EXTENT EVALUATION COMPARISON VALUES**

Sample Location	Sample Date	Chemical of Interest	Concentration (mg/L)	Extent Evaluation Comparison Value ⁽¹⁾ (mg/L)
NB4PZ01	8/3/2006	Chromium	0.14J	0.1
		Endosulfan II	0.000021J	0.000009
		Nickel	0.14J	0.013
		Silver	0.0088J	0.00019
NC3PZ02	8/2/2006	Chromium	0.16	0.1
		Silver	0.017J	0.00019
ND1PZ03	8/1-2/2006	Benzene	0.657	0.11
		Endosulfan II	0.0000103J	0.000009
		Silver	0.0099J	0.00019
		Vinyl chloride	1.22	0.2
ND2MW01	8/3/2006	1,1,1-Trichloroethane	15.4	1.6
		1,1-Dichloroethene	23.5	0.7
		1,2,3-Trichloropropane	25.5J-	0.029
		1,2-Dichloroethane	58.8	0.5
		1,2-Dichloropropane	3.45J	0.5
		4,4'-DDE	0.00027	0.00014
		Benzene	5.39J	0.11
		Chromium	0.15J	0.1
		cis-1,2-Dichloroethene	13.4	7
		Dieldrin	0.0000264J	0.000002
		gamma-BHC (Lindane)	0.00016J	0.000016
		Methylene chloride	300	0.5
		Silver	0.012J	0.00019
		Tetrachloroethene	20.5	0.5
	Trichloroethene	84	0.5	
	11/8/2007	1,1-Dichloroethene	2.92	0.7
		1,2-Dichloroethene(Total)	19.2	0.68
		Benzene	0.518J	0.11
		cis-1,2-Dichloroethene	19.2	7
		Vinyl chloride	0.331J	0.2
6/18/2008	1,1-Dichloroethene	2.35	0.7	
	1,2,3-Trichloropropane	0.374J	0.029	
	1,2-Dichloroethane	1.25	0.5	
	1,2-Dichloroethene(Total)	12.5	0.68	
	Benzene	0.375J	0.11	
	cis-1,2-Dichloroethene	12.5	7	
	Methylene chloride	2.88	0.5	
Vinyl chloride	0.978J	0.2		

**TABLE 24 - DETECTED ZONE A GROUNDWATER CONCENTRATIONS
EXCEEDING EXTENT EVALUATION COMPARISON VALUES**

Sample Location	Sample Date	Chemical of Interest	Concentration (mg/L)	Extent Evaluation Comparison Value ⁽¹⁾ (mg/L)
ND3MW02	8/3/2006	1,1,1-Trichloroethane	2.25	1.6
		1,2,3-Trichloropropane	0.497J-	0.029
		Anthracene	0.000832J	0.00018
		Chromium	0.15J	0.1
		gamma-BHC (Lindane)	0.00019J	0.000016
		Silver	0.0063J	0.00019
		Tetrachloroethene	1.92	0.5
		Trichloroethene	6.04	0.5
	11/8/2007	1,1,1-Trichloroethane	14	1.6
1,2,3-Trichloropropane		1.57	0.029	
1,2-Dichloroethene(Total)		9.37	0.68	
Benzene		0.158J	0.11	
cis-1,2-Dichloroethene		9.37	7	
Tetrachloroethene		2.1	0.5	
6/18/2008	Trichloroethene	17.7	0.5	
	1,1,1-Trichloroethane	42	1.6	
	1,1-Dichloroethene	0.975J	0.7	
	1,2,3-Trichloropropane	3.86J	0.029	
	1,2-Dichloroethene(Total)	13.6	0.68	
	cis-1,2-Dichloroethene	13.6	7	
	Tetrachloroethene	34.8	0.5	
	Toluene	0.691J	0.48	
ND3MW29	6/5/2007	Trichloroethene	76	0.5
		1,1,1-Trichloroethane	156	1.6
		1,2,3-Trichloropropane	44.3J	0.029
		1,2-Dichloroethane	328	0.5
		Endosulfan II	0.00012J	0.000009
		gamma-BHC (Lindane)	0.00153	0.000016
	11/8/2007	Methylene chloride	1230	0.5
		Trichloroethene	61.2J	0.5
		1,1,1-Trichloroethane	195	1.6
		1,1-Dichloroethene	22J	0.7
		1,2,3-Trichloropropane	53.1J	0.029
		1,2-Dichloroethane	292	0.5
	6/18/2008	Methylene chloride	1100	0.5
		Trichloroethene	69.4J	0.5
		1,1,1-Trichloroethane	234	1.6
		1,1-Dichloroethene	21.3J	0.7
		1,2,3-Trichloropropane	44.4J	0.029
		1,2-Dichloroethane	347	0.5
6/18/2008	1,2-Dichloroethene(Total)	24.5J	0.68	
	Benzene	5.92J	0.11	
	cis-1,2-Dichloroethene	24.5J	7	
	Methylene chloride	1100	0.5	
	Tetrachloroethene	12.9J	0.5	
	Trichloroethene	135	0.5	

**TABLE 24 - DETECTED ZONE A GROUNDWATER CONCENTRATIONS
EXCEEDING EXTENT EVALUATION COMPARISON VALUES**

Sample Location	Sample Date	Chemical of Interest	Concentration (mg/L)	Extent Evaluation Comparison Value ⁽¹⁾ (mg/L)
ND3PZ04	7/31/2006	1,1,1-Trichloroethane	62.7	1.6
		1,1-Dichloroethene	29.2	0.7
		1,2,3-Trichloropropane	28.2	0.029
		1,2-Dichloropropane	3.36J	0.5
		Benzene	8.24J	0.11
		Carbon tetrachloride	7.58J	0.5
		cis-1,2-Dichloroethene	124	7
		Heptachlor epoxide	0.000025	0.0000036
		Silver	0.005J	0.00019
		Tetrachloroethene	7.86J	0.5
		Toluene	4.05J	0.48
		Trichloroethene	31.7	0.5
		Vinyl chloride	5.09J	0.2
ND4MW03	8/2/2006	Silver	0.013	0.00019
NE1MW04	8/3/2006	Chromium	0.11J	0.1
		Endosulfan II	0.0000138J	0.000009
		Silver	0.014J	0.00019
NE3MW05	8/2/2006	Anthracene	0.00138J	0.00018
		Ethylbenzene	0.74	0.25
		Naphthalene	0.322	0.13
		Phenanthrene	0.00638	0.0046
		Pyrene	0.000517J	0.00024
		Silver	0.001J	0.00019
	11/7/2007	Ethylbenzene	0.273	0.25
Naphthalene	0.243	0.13		
NF1PZ05	8/3/2006	Chromium	0.13J	0.11
		Endosulfan II	0.0000148J	0.000009
		Silver	0.0085J	0.00019
NF2MW06	8/3/2006	1,2,3-Trichloropropane	0.214	0.029
		Endosulfan sulfate	0.0000156J	0.000009
		Methylene chloride	0.944	0.5
		Silver	0.0032J	0.00019
		Trichloroethene	0.506	0.5
NF3PZ06	8/1/2006	Nickel	0.084	0.013
		Silver	0.011J	0.00019
SA4PZ07	8/3/2006	Chromium	0.14J	0.1
		Endosulfan II	0.0000309J	0.000009
		Nickel	0.022J	0.013
		Silver	0.016J	0.00019
SB4MW07	8/1/2006	Silver	0.03J	0.00019

**TABLE 24 - DETECTED ZONE A GROUNDWATER CONCENTRATIONS
EXCEEDING EXTENT EVALUATION COMPARISON VALUES**

Sample Location	Sample Date	Chemical of Interest	Concentration (mg/L)	Extent Evaluation Comparison Value ⁽¹⁾ (mg/L)
SD3PZ08	7/31/2006	Chromium	0.15	0.1
		Silver	0.012J	0.00019
SE1MW08	8/2/2006	Silver	0.011	0.00019
SE6MW09	7/31/2006	Silver	0.0024J	0.00019
SF5MW10	8/1/2006	gamma-BHC (Lindane)	0.000024J	0.000016
	6/4/2007	gamma-BHC (Lindane)	0.000042J	0.000016
SF6MW11	7/31/2006	Silver	0.0099J	0.00019
SF7MW12	7/31/2006	Silver	0.0044J	0.00019
SG2MW13	8/1/2006	Silver	0.015J	0.00019
SH7MW14	7/31/2006	Silver	0.0028J	0.00019
SJ1MW15	8/2/2006	Endosulfan sulfate	0.000104	0.000009
		Heptachlor epoxide	0.0000201J	0.0000036
		Silver	0.0088	0.00019
SJ7MW16	7/31/2006	Silver	0.0048J	0.00019
SL8MW17	8/3/2006	Silver	0.028J	0.00019

Notes:

(1) Extent Evaluation Comparison Values from Table 23.

(2) Data qualifiers: J = estimated value. J- = estimated value, biased low.

TABLE 25 - VERTICAL GRADIENT MEASUREMENTS

Well ID	Date	MP ¹ Elevation (ft AMSL ²)	Depth to Water (ft BMP ³)	Water Elevation (ft AMSL)	Vertical Gradient ⁴ - Zone A to B	Vertical Gradient ⁴ - Zone B to C
ND4MW03	6/6/2007	6.20	4.42	1.78		
	9/6/2007	6.20	3.84	2.36		
	11/7/2007	6.20	4.47	1.73		
	12/3/2007	6.20	3.73	2.47		
	6/17/2008	6.20	6.31	-0.11		
ND4MW24B	6/6/2007	5.70	3.81	1.89		
	9/6/2007	5.70	3.41	2.29		
	11/7/2007	5.70	3.78	1.92		
	12/3/2007	5.70	3.32	2.38		
	6/17/2008	5.70	5.48	0.22		
Vertical gradients for well cluster	6/6/2007				-0.03	--
	9/6/2007				0.02	--
	11/7/2007				-0.05	--
	12/3/2007				0.02	--
	6/17/2008				-0.08	--
NG3MW19	6/6/2007	5.08	3.58	1.50		
	9/6/2007	5.08	3.29	1.79		
	11/7/2007	5.08	3.77	1.31		
	12/3/2007	5.08	3.29	1.79		
	6/17/2008	5.08	4.38	0.70		
NG3MW25B	6/6/2007	4.91	3.17	1.74		
	9/6/2007	4.91	3.01	1.90		
	11/7/2007	4.91	3.15	1.76		
	12/3/2007	4.91	2.94	1.97		
	6/17/2008	4.91	3.69	1.22		
	7/30/2008	4.91	3.26	1.65		
NG3CPT1	6/9/2008	5.79	9.82	4.03		
	6/17/2008	5.79	9.47	-3.68		
	7/30/2008	5.79	9.41	-3.62		
Vertical gradients for well cluster	6/6/2007				-0.07	--
	9/6/2007				-0.03	--
	11/7/2007				-0.13	--
	12/3/2007				-0.05	--
	6/17/2008				-0.15	0.14
	7/30/2008				--	0.15

TABLE 25 - VERTICAL GRADIENT MEASUREMENTS

Well ID	Date	MP ¹ Elevation (ft AMSL ²)	Depth to Water (ft BMP ³)	Water Elevation (ft AMSL)	Vertical Gradient ⁴ - Zone A to B	Vertical Gradient ⁴ - Zone B to C
OMW21	6/6/2007	5.73	4.17	1.56		
	9/6/2007	5.73	3.96	1.77		
	11/7/2007	5.73	5.07	0.66		
	12/3/2007	5.73	4.86	0.87		
	6/17/2008	5.73	6.12	-0.39		
OMW27B	6/6/2007	5.45	3.26	2.19		
	9/6/2007	5.45	3.04	2.41		
	11/7/2007	5.45	4.34	1.11		
	12/3/2007	5.45	4.17	1.28		
	6/17/2008	5.45	5.47	-0.02		
	7/30/2008	5.45	4.27	1.18		
OCPT4	6/9/2008	6.38	12.25	5.87		
	6/17/2008	6.38	12.46	-6.08		
	7/30/2008	6.38	12.93	-6.55		
Vertical gradient for well cluster	6/6/2007				-0.10	--
	9/6/2007				-0.10	--
	11/7/2007				-0.07	--
	12/3/2007				-0.06	--
	6/17/2008				-0.06	0.17
	7/30/2008				--	0.21
NE4MW31B	6/17/2008	6.01	5.04	0.97		
	7/30/2008	6.01	4.59	1.42		
NE4CPT2	6/17/2008	6.77	10.32	-3.55		
	7/30/2008	6.77	10.31	-3.54		
Vertical gradient for well cluster	6/17/2008				--	0.13
	7/30/2008				--	0.14

Notes:

¹ MP = Measurement Point (Top of PVC well casing).

² AMSL = Above Mean Sea Level (NGVD 29).

³ BMP = Below Measurement Point.

⁴ Vertical gradient calculated using vertical distance from base of screened interval in upper unit monitoring well to top of screened interval in lower unit monitoring well at well cluster location. A positive value indicates a downward gradient. A negative value indicates an upward gradient.

TABLE 26 - ZONE B GROUNDWATER CONCENTRATIONS

Sample Location	Sample Date	Chemical of Interest	Concentration (mg/L)	Extent Evaluation Comparison Value (mg/L) ¹
ND4MW24B	6/5/2007	1,1,1-Trichloroethane	<0.000155	1.6
		1,1-Dichloroethene	<0.000226	0.7
		1,2,3-Trichloropropane	<0.000151	0.029
		1,2-Dichloroethane	0.00157J	0.5
		1,2-Dichloropropane	<0.0001	0.5
		4,4'-DDE	<0.00000195	0.6
		Anthracene	<0.000102	2,200
		Benzene	<0.000184	0.5
		Carbon tetrachloride	<0.000124	0.5
		cis-1,2-Dichloroethene	0.00431J	7
		Dieldrin	<0.00000425	0.013
		Endosulfan II	<0.0000018	44
		Endosulfan sulfate	<0.0000016	44
		Ethylbenzene	<0.000077	70
		gamma-BHC (Lindane)	<0.00000125	0.02
		Heptachlor epoxide	<0.000002	0.02
		Methylene chloride	0.00437J	0.5
		Naphthalene	<0.000053	57
		Nickel	<0.0009	15
		Phenanthrene	<0.000137	220
		Pyrene	<0.00009	220
		Tetrachloroethene	0.000881J	0.5
		Thallium	<0.0038	0.2
Toluene	<0.000093	100		
Trichloroethene	0.00203J	0.5		
Vinyl chloride	<0.000163	0.2		
NE3MW30B	12/3/2007	1,1,1-Trichloroethane	64	1.6
		1,1-Dichloroethene	10.2J	0.7
		1,2,3-Trichloropropane	45.7	0.029
		1,2-Dichloroethane	176	0.5
		1,2-Dichloropropane	<0.499	0.5
		Anthracene	<0.000104	2,200
		Benzene	<0.921	0.5
		Carbon tetrachloride	<0.621	0.5
		cis-1,2-Dichloroethene	<0.768	7
		Ethylbenzene	<0.387	70
		Methylene chloride	738	0.5
		Naphthalene	<1.84	57
		Nickel	<0.00084	15
		Phenanthrene	0.00576	220
		Pyrene	<0.000092	220
		Tetrachloroethene	23.8J	0.5
		Thallium	<0.0038	0.2
		Toluene	<0.466	100
		Trichloroethene	170	0.5
		Vinyl chloride	<0.817	0.2

TABLE 26 - ZONE B GROUNDWATER CONCENTRATIONS

Sample Location	Sample Date	Chemical of Interest	Concentration (mg/L)	Extent Evaluation Comparison Value (mg/L) ¹
NE4MW31B	6/18/2008	1,1,1-Trichloroethane	<0.000155	1.6
		1,1-Dichloroethene	<0.000226	0.7
		1,2,3-Trichloropropane	<0.000151	0.029
		1,2-Dichloroethane	<0.000184	0.5
		Benzene	<0.000184	0.5
		Carbon tetrachloride	<0.000124	0.5
		cis-1,2-Dichloroethene	0.000423J	7
		Methylene chloride	0.00218J	0.5
		Tetrachloroethene	<0.000081	0.5
		Trichloroethene	<0.000123	0.5
		Vinyl chloride	<0.000163	0.2
NG3MW25B	6/6/2007	1,1,1-Trichloroethane	<0.000155	1.6
		1,1-Dichloroethene	<0.000226	0.7
		1,2,3-Trichloropropane	<0.000151	0.029
		1,2-Dichloroethane	<0.000184	0.5
		1,2-Dichloropropane	<0.0001	0.5
		4,4'-DDE	<0.00000195	0.6
		Anthracene	<0.000102	2200
		Benzene	<0.000184	0.5
		Carbon tetrachloride	<0.000124	0.5
		cis-1,2-Dichloroethene	<0.000154	7
		Dieldrin	<0.00000425	0.013
		Endosulfan II	<0.0000018	44
		Endosulfan sulfate	<0.0000016	44
		Ethylbenzene	<0.000077	70
		gamma-BHC (Lindane)	<0.00000125	0.02
		Heptachlor epoxide	<0.000002	0.02
		Methylene chloride	<0.000675	0.5
		Naphthalene	<0.000053	57
		Nickel	<0.0009	15
		Phenanthrene	<0.000137	220
		Pyrene	<0.00009	220
		Tetrachloroethene	<0.000081	0.5
		Thallium	<0.0038	0.2
Toluene	<0.000093	100		
Trichloroethene	<0.000123	0.5		
Vinyl chloride	<0.000163	0.2		

TABLE 26 - ZONE B GROUNDWATER CONCENTRATIONS

Sample Location	Sample Date	Chemical of Interest	Concentration (mg/L)	Extent Evaluation Comparison Value (mg/L) ¹
OMW27B	6/4/2007	1,1,1-Trichloroethane	<0.000155	1.6
		1,1-Dichloroethene	<0.000226	0.7
		1,2,3-Trichloropropane	<0.000151	0.029
		1,2-Dichloroethane	<0.000184	0.5
		1,2-Dichloropropane	<0.0001	0.5
		4,4'-DDE	<0.00000195	0.6
		Anthracene	<0.000102	2200
		Benzene	<0.000184	0.5
		Carbon tetrachloride	<0.000124	0.5
		cis-1,2-Dichloroethene	<0.000154	7
		Dieldrin	<0.00000425	0.013
		Endosulfan II	<0.0000018	44
		Endosulfan sulfate	<0.0000016	44
		Ethylbenzene	<0.000077	70
		gamma-BHC (Lindane)	<0.00000125	0.02
		Heptachlor epoxide	<0.000002	0.02
		Methylene chloride	<0.000774	0.5
		Naphthalene	<0.000053	57
		Nickel	<0.00045	15
		Phenanthrene	<0.000137	220
Pyrene	<0.00009	220		
Tetrachloroethene	<0.000081	0.5		
Thallium	<0.0019	0.2		
Toluene	<0.000093	100		
Trichloroethene	<0.000123	0.5		
Vinyl chloride	<0.000163	0.2		

Notes:

- (1) Extent Evaluation Comparison Values from Table 23 (human health PSVs only).
- (2) Data qualifiers: J = estimated value.
- (3) Bolded values and detection limits exceed extent evaluation comparison value.

TABLE 27 - LABORATORY VERTICAL HYDRAULIC CONDUCTIVITY TESTING RESULTS

Sample Location	Sample Depth (ft below ground surface)	Vertical Hydraulic Conductivity (cm/sec)
NE4MW32C	53-55	6.55×10^{-9}
NE4MW32C	55-57	5.66×10^{-9}
SE1DB01	80-82	1.64×10^{-8}

TABLE 28 - ZONE C GROUNDWATER CONCENTRATIONS

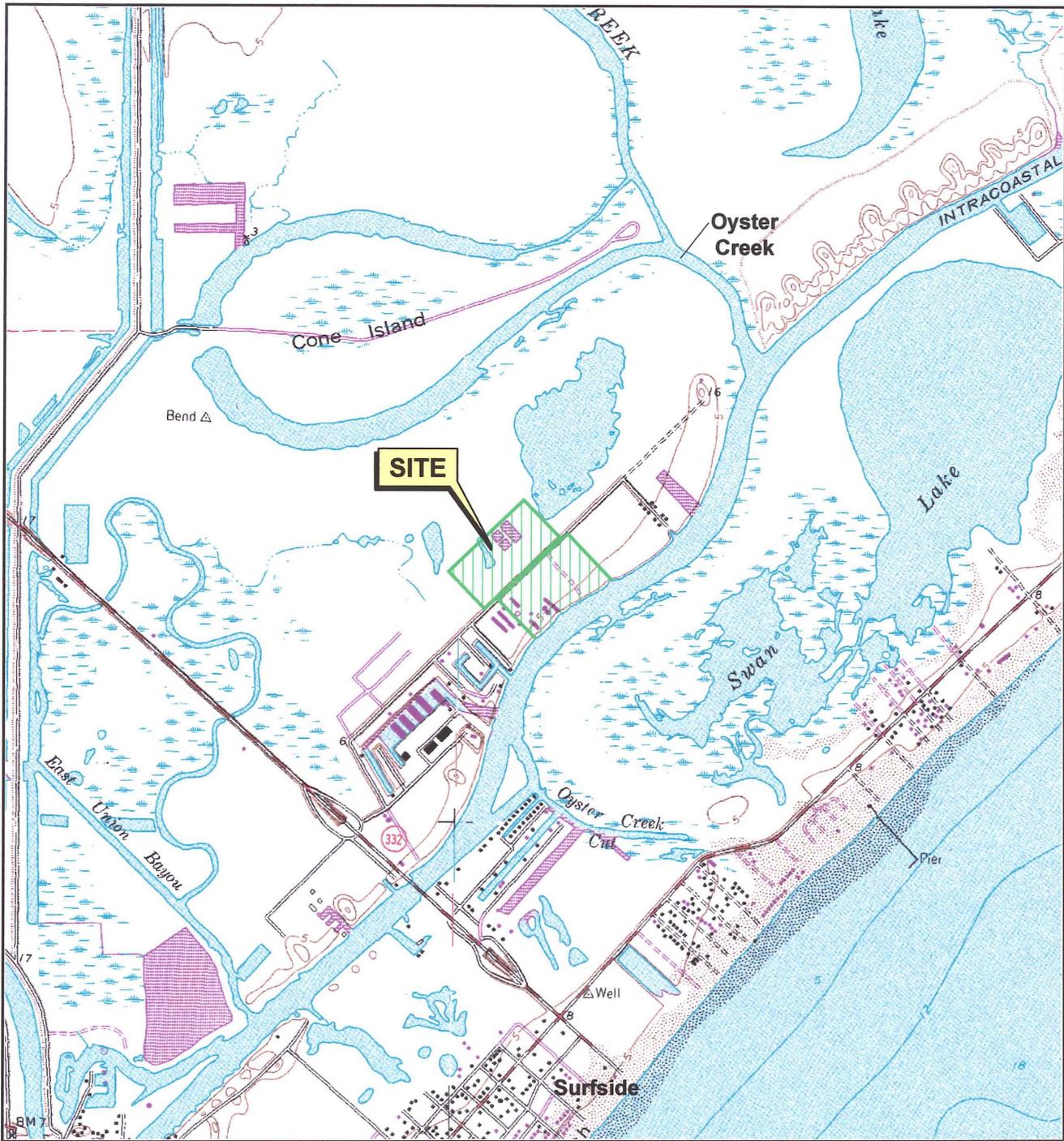
Sample Location	Sample Date	Chemical of Interest	Concentration (mg/L)	Extent Evaluation Comparison Value (mg/L) ¹
NE4MW32C	6/18/2008	1,1,1-Trichloroethane	0.709	20
		1,1-Dichloroethene	<0.000226	0.7
		1,2,3-Trichloropropane	0.321	0.029
		1,2-Dichloroethane	<0.000184	0.5
		Benzene	0.0459J	0.5
		Carbon tetrachloride	<0.000124	0.5
		cis-1,2-Dichloroethene	4.62	7
		Methylene chloride	<0.000104	0.5
		Tetrachloroethene	1.35	0.5
		Trichloroethene	1.89	0.5
		Vinyl chloride	<0.000163	0.2
		NE4MW32C	7/31/2008	1,1,1-Trichloroethane
1,1-Dichloroethene	0.0379			0.7
1,2,3-Trichloropropane	0.219			0.029
1,2-Dichloroethane	<0.0018			0.5
Benzene	0.0548			0.5
Carbon tetrachloride	<0.00312			0.5
cis-1,2-Dichloroethene	3.27			7
Methylene chloride	<0.00192			0.5
Tetrachloroethene	<0.00306			0.5
Trichloroethene	<0.00236			0.5
Vinyl chloride	<0.00310			0.2
NE4MW32C	9/30/2008			1,1,1-Trichloroethane
		1,1-Dichloroethene	0.00177J	0.7
		1,2,3-Trichloropropane	0.0119	0.029
		1,2-Dichloroethane	<0.00009	0.5
		Benzene	0.0012J	0.5
		Carbon tetrachloride	<0.000156	0.5
		cis-1,2-Dichloroethene	0.168	7
		Methylene chloride	<0.000096	0.5
		Tetrachloroethene	0.00648	0.5
		Trichloroethene	0.00639	0.5
		Vinyl chloride	<0.000155	0.2
		NE4MW32C	1/13/2009	1,1,1-Trichloroethane
1,1-Dichloroethene	0.00143J			0.7
1,2,3-Trichloropropane	0.0042J			0.029
1,2-Dichloroethane	<0.00009			0.5
Benzene	0.00141J			0.5
Carbon tetrachloride	<0.000156			0.5
cis-1,2-Dichloroethene	0.112			7
Methylene chloride	<0.000096			0.5
Tetrachloroethene	<0.000153			0.5
Trichloroethene	0.0341			0.5
Vinyl chloride	<0.000155			0.2
NG3CPT1	7/31/2008			1,1,1-Trichloroethane
		1,1-Dichloroethene	<0.000201	0.7
		1,2,3-Trichloropropane	<0.000091	0.029
		1,2-Dichloroethane	<0.000090	0.5
		Benzene	<0.000065	0.5
		Carbon tetrachloride	<0.000156	0.5
		cis-1,2-Dichloroethene	<0.000162	7
		Methylene chloride	<0.000096	0.5
		Tetrachloroethene	<0.000153	0.5
		Trichloroethene	<0.000118	0.5
		Vinyl chloride	<0.000155	0.2

TABLE 28 - ZONE C GROUNDWATER CONCENTRATIONS

Sample Location	Sample Date	Chemical of Interest	Concentration (mg/L)	Extent Evaluation Comparison Value (mg/L) ¹
NE4CPT2	7/31/2008	1,1,1-Trichloroethane	<0.000096	20
		1,1-Dichloroethene	<0.000201	0.7
		1,2,3-Trichloropropane	<0.000091	0.029
		1,2-Dichloroethane	<0.000090	0.5
		Benzene	<0.000065	0.5
		Carbon tetrachloride	<0.000156	0.5
		cis-1,2-Dichloroethene	<0.000162	7
		Methylene chloride	<0.000096	0.5
		Tetrachloroethene	<0.000153	0.5
		Trichloroethene	<0.000118	0.5
		Vinyl chloride	<0.000155	0.2
NC2CPT3	7/31/2008	1,1,1-Trichloroethane	<0.000096	20
		1,1-Dichloroethene	<0.000201	0.7
		1,2,3-Trichloropropane	<0.000091	0.029
		1,2-Dichloroethane	<0.000090	0.5
		Benzene	<0.000065	0.5
		Carbon tetrachloride	<0.000156	0.5
		cis-1,2-Dichloroethene	<0.000162	7
		Methylene chloride	<0.000096	0.5
		Tetrachloroethene	<0.000153	0.5
		Trichloroethene	<0.000118	0.5
		Vinyl chloride	<0.000155	0.2
OCPT4	7/31/2008	1,1,1-Trichloroethane	<0.000096	20
		1,1-Dichloroethene	<0.000201	0.7
		1,2,3-Trichloropropane	<0.000091	0.029
		1,2-Dichloroethane	<0.000090	0.5
		Benzene	<0.000065	0.5
		Carbon tetrachloride	<0.000156	0.5
		cis-1,2-Dichloroethene	<0.000162	7
		Methylene chloride	<0.000096	0.5
		Tetrachloroethene	<0.000153	0.5
		Trichloroethene	<0.000118	0.5
		Vinyl chloride	<0.000155	0.2
OCPT5	1/13/2009	1,1,1-Trichloroethane	<0.000096	20
		1,1-Dichloroethene	<0.000201	0.7
		1,2,3-Trichloropropane	<0.000091	0.029
		1,2-Dichloroethane	<0.000090	0.5
		Benzene	<0.000065	0.5
		Carbon tetrachloride	<0.000156	0.5
		cis-1,2-Dichloroethene	<0.000162	7
		Methylene chloride	<0.000096	0.5
		Tetrachloroethene	<0.000153	0.5
		Trichloroethene	<0.000118	0.5
		Vinyl chloride	<0.000155	0.2

Notes:

- (1) Extent Evaluation Comparison Values from Table 23 (human health PSVs only).
- (2) Data qualifiers: J = estimated value.
- (3) Bolded values exceed extent evaluation comparison value.



QUADRANGLE LOCATION



Scale in Feet



**GULFCO MARINE MAINTENANCE
FREEPORT, BRAZORIA COUNTY, TEXAS**

Figure 1
SITE LOCATION MAP

PROJECT: 1352

BY: ZGK

REVISIONS

DATE: FEB., 2009

CHECKED: EFP

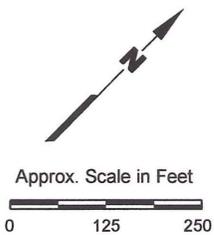
PASTOR, BEHLING & WHEELER, LLC
CONSULTING ENGINEERS AND SCIENTISTS

Source:
Base map taken from <http://www.tnris.state.tx.us> Freeport, Texas 7.5 min.
U.S.G.S. quadrangle, 1974.



EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- - Lot Boundary (approximate)



Source of photo: H-GAC, Texas aerial photograph, 2006.

**GULFCO MARINE MAINTENANCE
FREEPORT, BRAZORIA COUNTY, TEXAS**

Figure 2
SITE MAP

PROJECT: 1352	BY: ZGK	REVISIONS
DATE: FEB., 2009	CHECKED: EFP	

PASTOR, BEHLING & WHEELER, LLC
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EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- ⊕ Monitoring Well Location - Zone A
- ⊗ Temporary Piezometer - Zone A
- ◆ Staff Gauge
- Previous Monitoring Well Location
- Monitoring Well Location - Zone B
- ▲ Soil Boring Location - Zone B
- Monitoring Well Location - Zone C
- ⊗ CPT Piezometer Location - Zone C
- ▣ Deep Soil Boring Location

**GULFCO MARINE MAINTENANCE
FREEPORT, BRAZORIA COUNTY, TEXAS**

Figure 3
**MONITORING WELL
LOCATIONS**

PROJECT: 1352

BY: ZGK

REVISIONS

DATE: FEB., 2009

CHECKED: EFP

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Source of photo: H-GAC, Texas aerial photograph, 2006.



EXPLANATION

T13E-W — EM Survey Transect and ID
 ● Single RD Detection

Electromagnetic Conductivity Contour (MS) (Milisiemens)

- 500
- 750
- 1000
- 2000
- 3000
- 4000
- 5000
- 6000
- 7000
- 8000



Approx. Scale in Feet
 0 50 100

GULFCO MARINE MAINTENANCE
 FREEPORT, BRAZORIA COUNTY, TEXAS

Figure 4
EM SURVEY TRANSECTS AND DATA

PROJECT: 1352	BY: ZGK	REVISIONS
DATE: FEB., 2009	CHECKED: EFP	

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Source of photo: H-GAC, Texas aerial photograph, 2006.



EXPLANATION

- IWSE29 ● Sediment Station
- IWSW20 ▲ Surface Water Station

Note:
Fish tissue samples collected from throughout background area.



Approx. Scale in Feet
0 125 250

Source of photo: H-GAC, Texas aerial photograph, 2006.

**GULFCO MARINE MAINTENANCE
FREEPORT, BRAZORIA COUNTY, TEXAS**

Figure 5
**INTRACOASTAL WATERWAY
BACKGROUND SAMPLE
LOCATIONS**

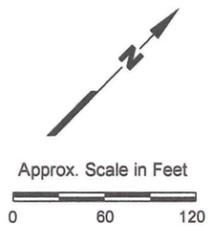
PROJECT: 1352	BY: ZGK	REVISIONS
DATE: FEB., 2009	CHECKED: EFP	

PASTOR, BEHLING & WHEELER, LLC
CONSULTING ENGINEERS AND SCIENTISTS



EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- Intracoastal Waterway Sediment Sample
- △ Intracoastal Waterway Surface Water Sample
- Attempted Intracoastal Waterway Sediment Sample
- ┌ Zone 1 ┐ Crab/Fish Tissue Sampling Zones



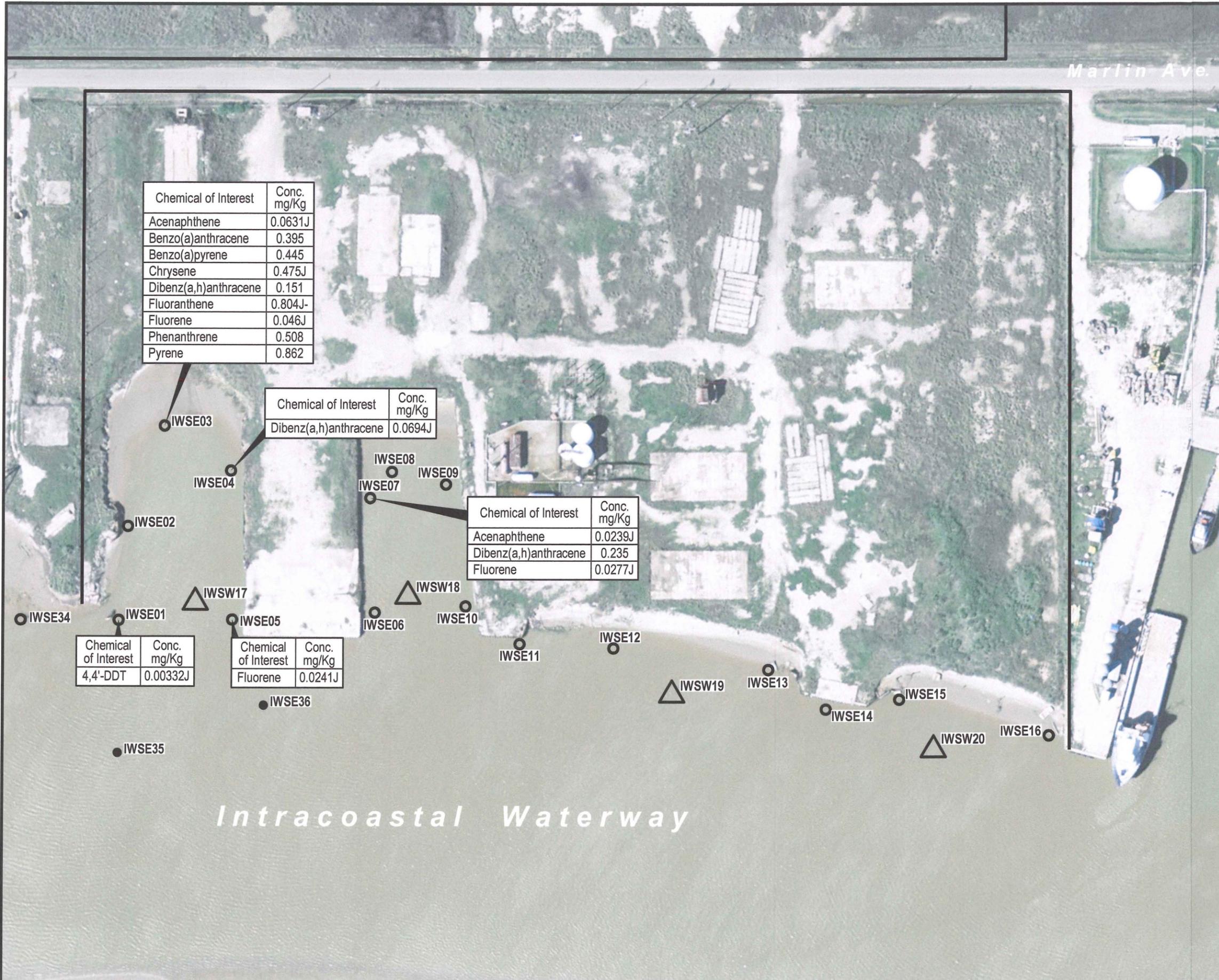
Source of photo: H-GAC, Texas aerial photograph, 2006.

GULFCO MARINE MAINTENANCE
 FREEPORT, BRAZORIA COUNTY, TEXAS

Figure 6
INTRACOASTAL WATERWAY
SITE SAMPLE LOCATIONS

PROJECT: 1352	BY: ZGK	REVISIONS
DATE: FEB., 2009	CHECKED: EFP	

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Chemical of Interest	Conc. mg/Kg
Acenaphthene	0.0631J
Benzo(a)anthracene	0.395
Benzo(a)pyrene	0.445
Chrysene	0.475J
Dibenz(a,h)anthracene	0.151
Fluoranthene	0.804J-
Fluorene	0.046J
Phenanthrene	0.508
Pyrene	0.862

Chemical of Interest	Conc. mg/Kg
Dibenz(a,h)anthracene	0.0694J

Chemical of Interest	Conc. mg/Kg
Acenaphthene	0.0239J
Dibenz(a,h)anthracene	0.235
Fluorene	0.0277J

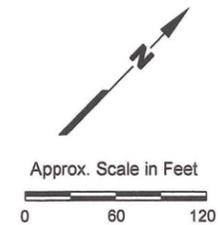
Chemical of Interest	Conc. mg/Kg
4,4'-DDT	0.00332J

Chemical of Interest	Conc. mg/Kg
Fluorene	0.0241J

EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- Intracoastal Waterway Sediment Sample
- △ Intracoastal Waterway Surface Water Sample
- Attempted Intracoastal Waterway Sediment Sample

Note:
Data Qualifiers: J = Estimated value.
J- = Estimated value - biased low.



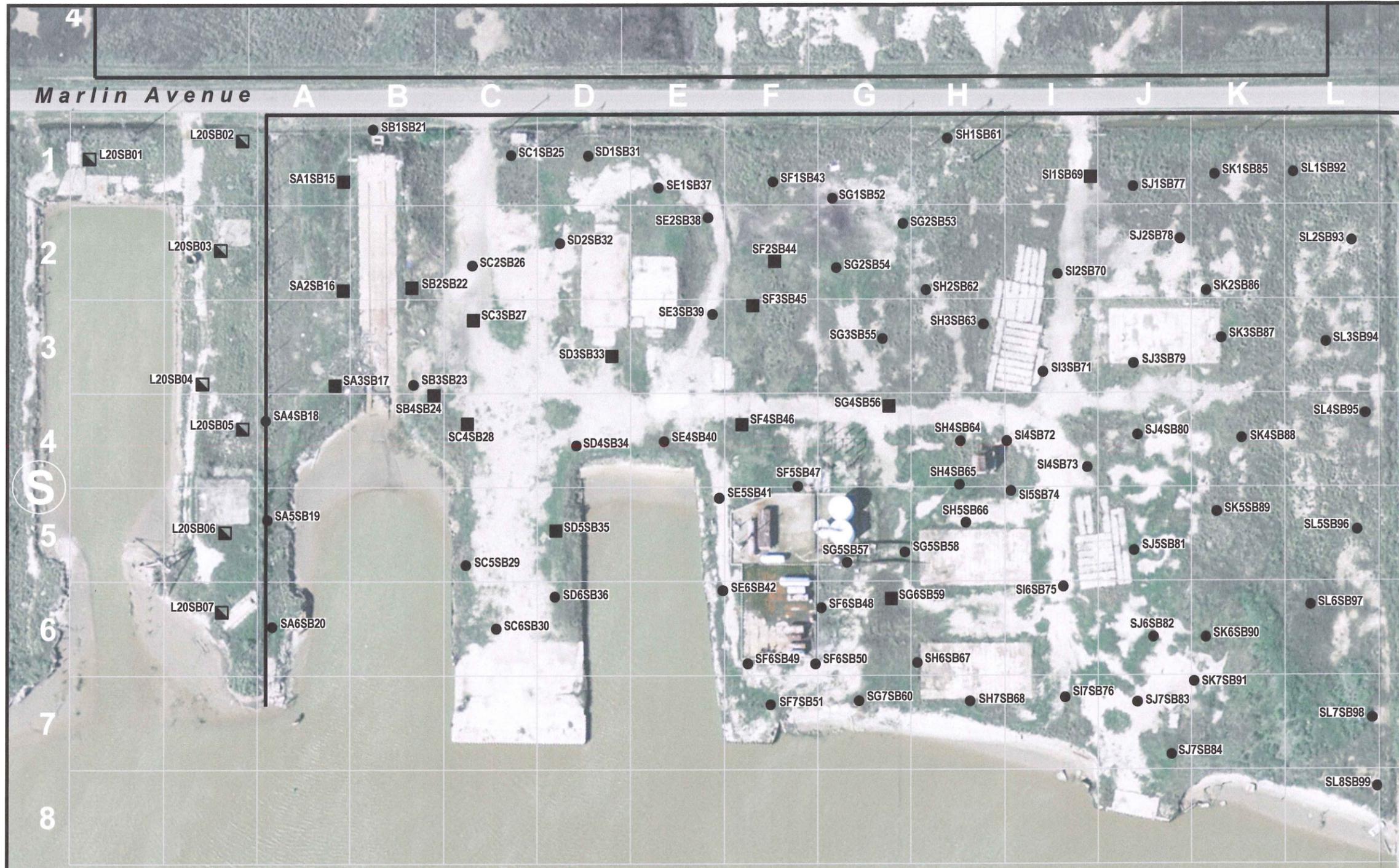
Source of photo: H-GAC, Texas aerial photograph, 2006.

**GULFCO MARINE MAINTENANCE
FREEPORT, BRAZORIA COUNTY, TEXAS**

Figure 7
**DETECTED CONCENTRATIONS
EXCEEDING COMPARISON VALUES-
INTRACOASTAL WATERWAY
SEDIMENTS**

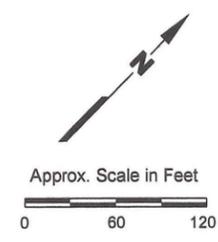
PROJECT: 1352	BY: ZGK	REVISIONS
DATE: FEB., 2009	CHECKED: EFP	

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EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- Shallow Soil Sample (0-2 ft)
- Shallow (0-2 ft) and Deep (4-5 ft) Soil Sample
- ▣ Lot 20 Soil Sample



Source of photo: H-GAC, Texas aerial photograph, 2006.

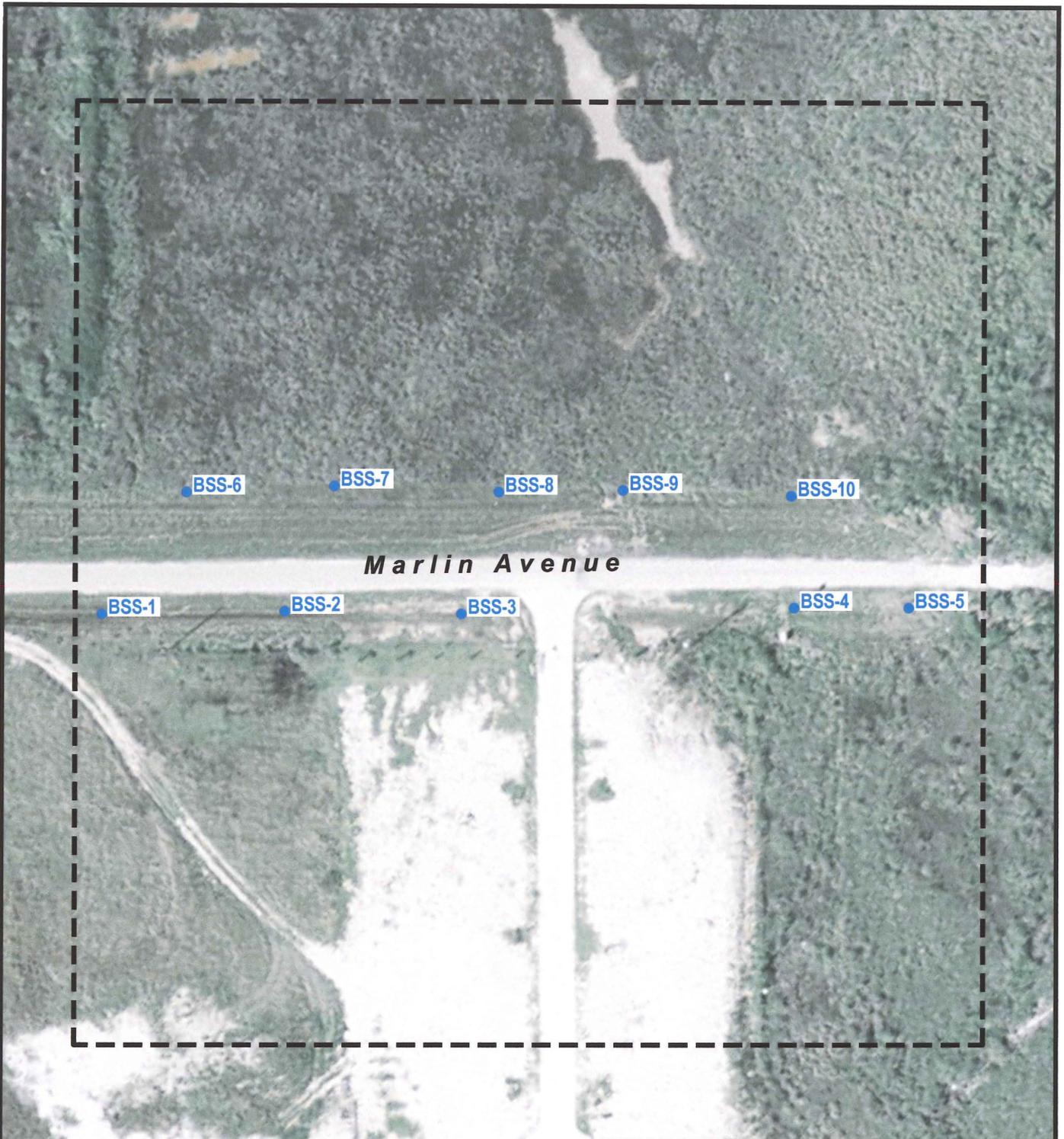
**GULFCO MARINE MAINTENANCE
FREEPORT, BRAZORIA COUNTY, TEXAS**

Figure 8
**SOUTH AREA
SOIL SAMPLE LOCATIONS**

PROJECT: 1352	BY: ZGK	REVISIONS
DATE: FEB., 2009	CHECKED: EFP	

PASTOR, BEHLING & WHEELER, LLC
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Intracoastal Waterway



EXPLANATION

--- Background Soil Area Boundary (per Figure 8 of Field Sampling Plan)

BSS-1 • Approximate Background Soil Sample Location

Note:
Background Area located approximately 2,000 feet east of Gulfco site.



Approx. Scale in Feet
0 40 80

Source of photo:
H-GAC, Texas aerial photograph, 2006.

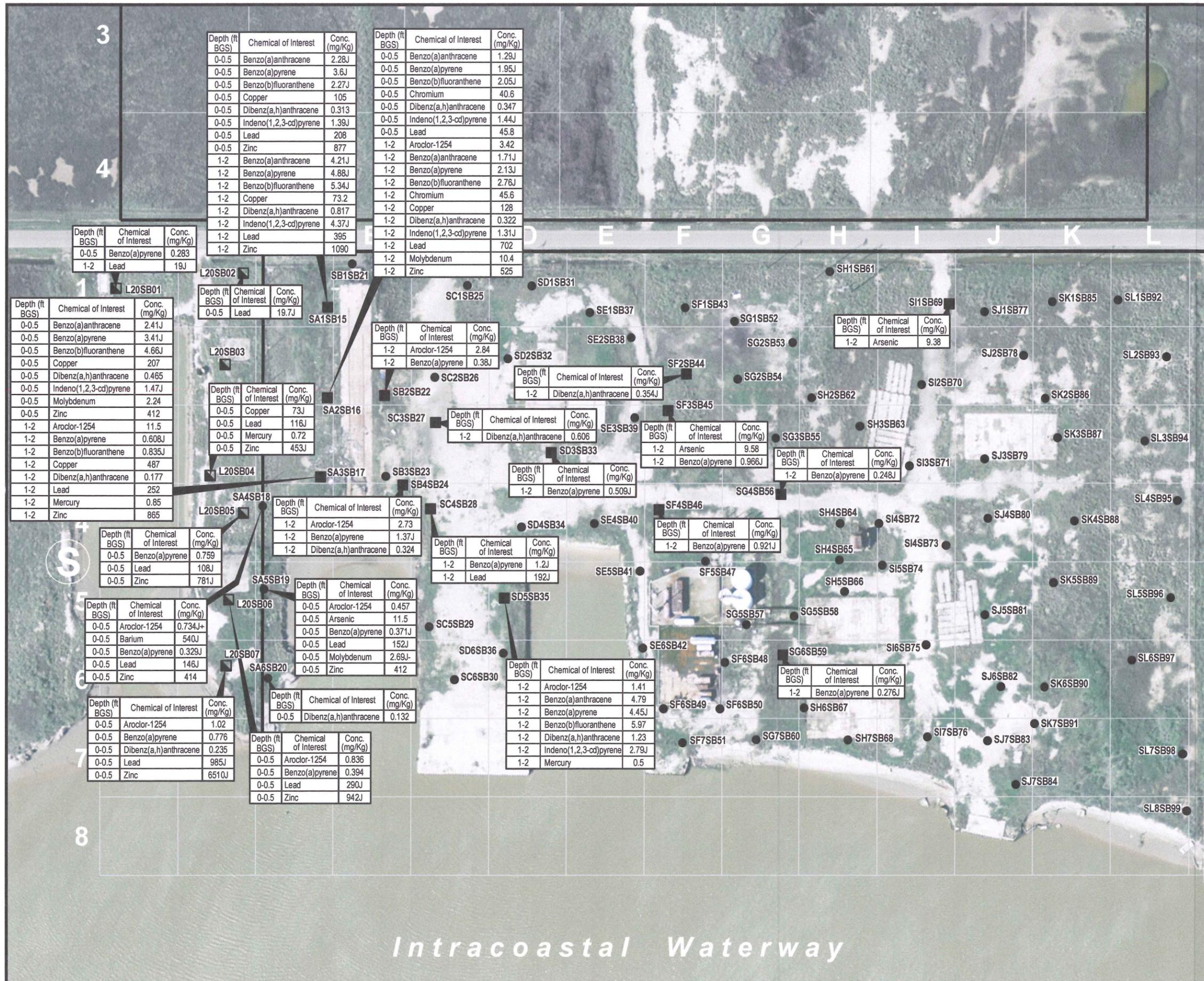
GULFCO MARINE MAINTENANCE
FREEPORT, BRAZORIA COUNTY, TEXAS

Figure 9

**BACKGROUND SOIL
SAMPLE LOCATIONS**

PROJECT: 1352	BY: ZGK	REVISIONS
DATE: FEB., 2009	CHECKED: EFP	

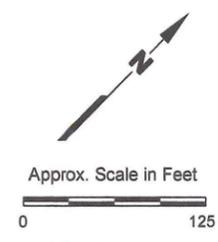
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EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- Shallow Soil Sample (0-2 ft)
- Shallow (0-2 ft) and Deep (4-5 ft) Soil Sample
- ◻ Lot 20 Soil Sample

Note:
 Data Qualifiers: J = Estimated value.
 J- = Estimated value - biased low.
 J+ = Estimated value - biased high.



Source of photo: H-GAC, Texas aerial photograph, 2006.

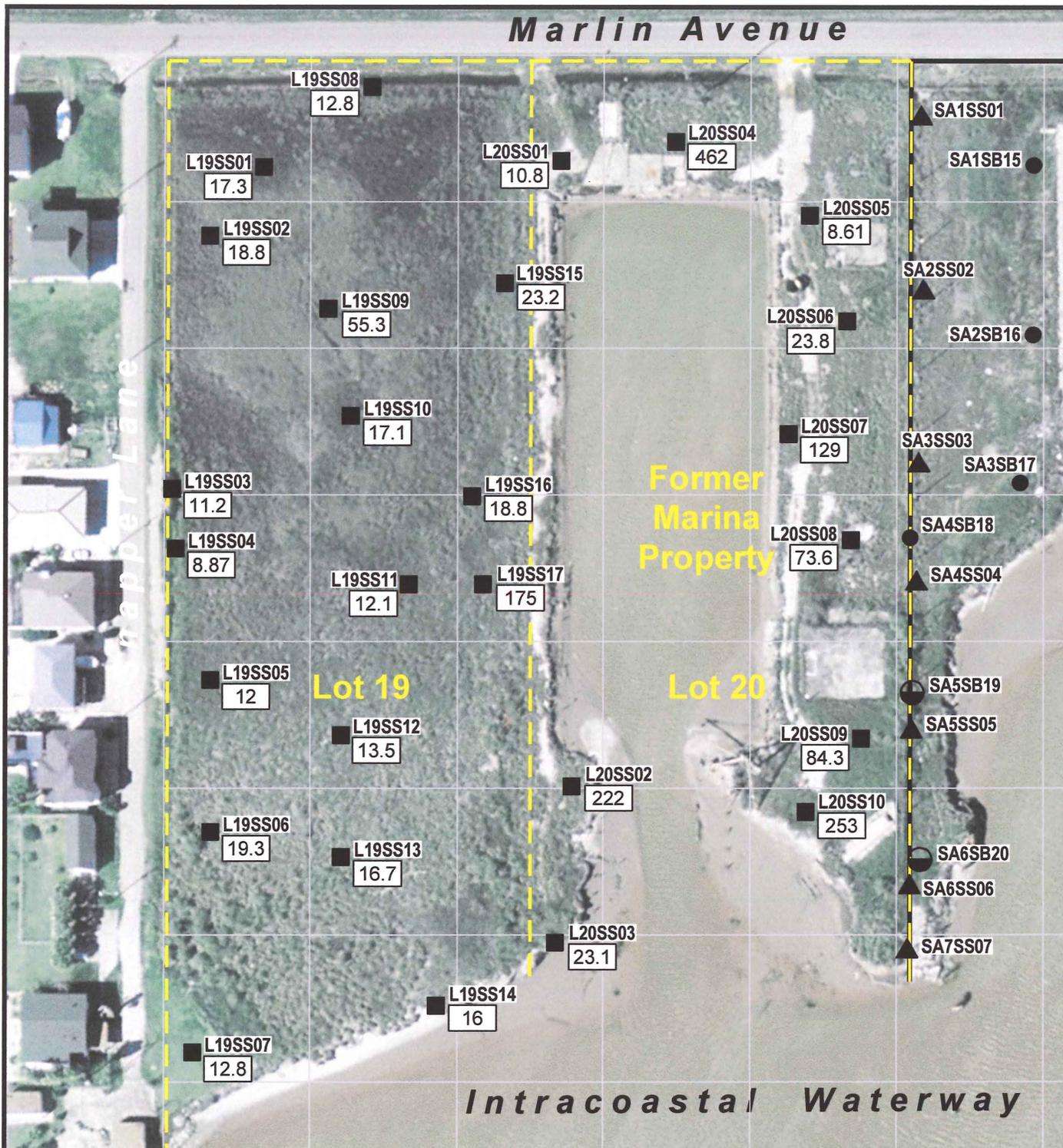
**GULFCO MARINE MAINTENANCE
 FREEPORT, BRAZORIA COUNTY, TEXAS**

Figure 10
**DETECTED CONCENTRATIONS
 EXCEEDING COMPARISON VALUES-
 SOUTH AREA PHASE 1
 PERIMETER SOIL SAMPLES**

PROJECT: 1352	BY: ZGK	REVISIONS
DATE: FEB., 2009	CHECKED: EFP	

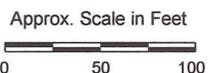
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Intracoastal Waterway



EXPLANATION

- GulfcO Marine Maintenance Site Boundary (approximate)
- Parcel Boundary (approximate)
- Judgmental Soil Sample (0-2 ft)
- Random Systematic Soil Sample (0-2 ft)
- Lot 21 Surface Soil Sample (0-1 in)
- Lot 19/20 Surface Soil Sample (0-1 in)
- Lead Concentration (mg/Kg)



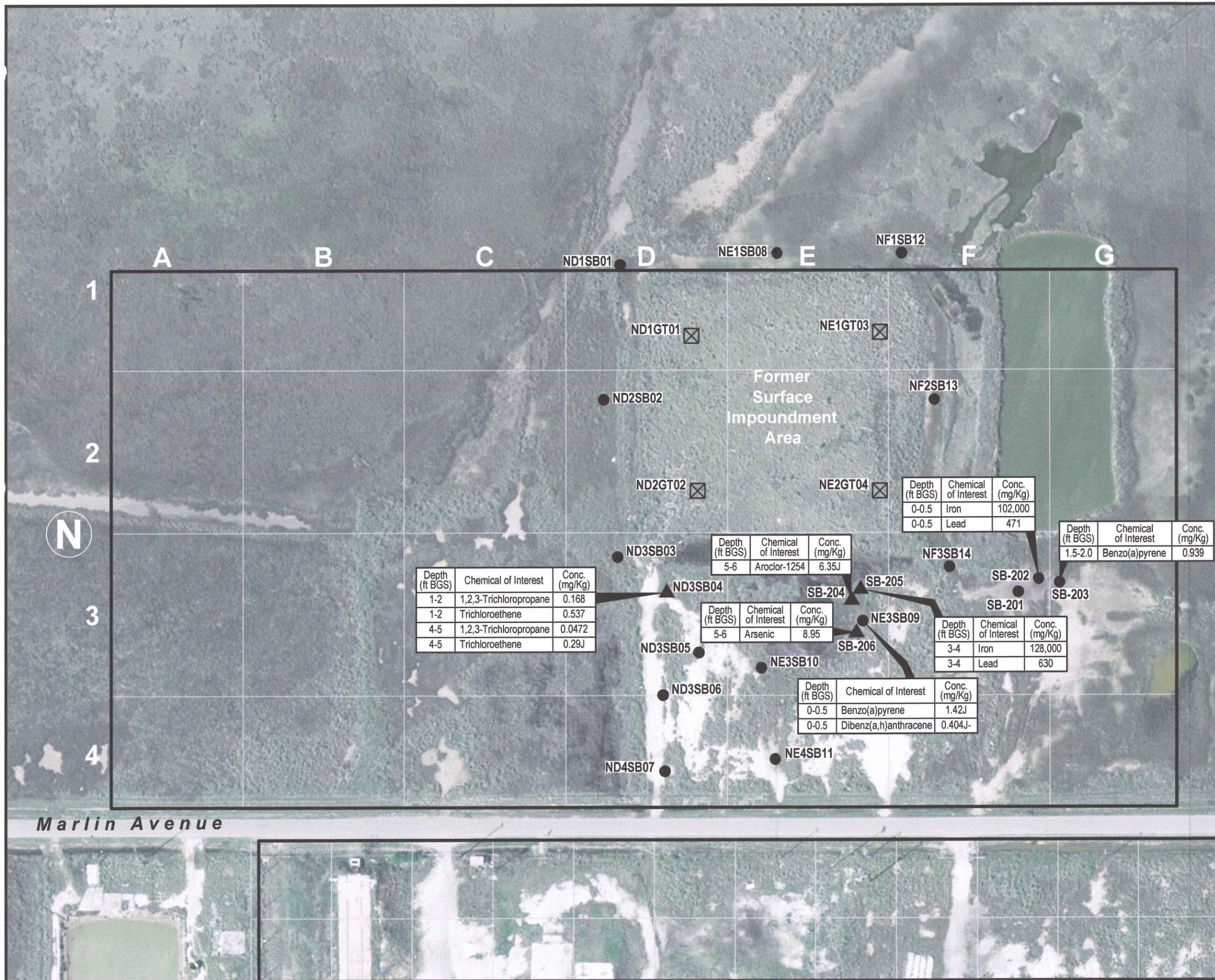
Source of photo:
H-GAC, Texas aerial photograph, 2006.

**GULFCO MARINE MAINTENANCE
FREEPORT, BRAZORIA COUNTY, TEXAS**

Figure 11
**LEAD CONCENTRATIONS IN LOT
19-20 SURFACE SOIL SAMPLES**

PROJECT: 1352	BY: ZGK	REVISIONS
DATE: FEB., 2009	CHECKED: EFP	

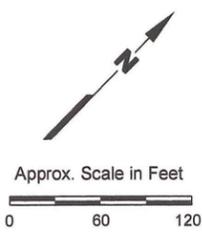
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EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- Shallow (0-2 ft) Soil Sample
- ▲ Shallow (0-2 ft) and Deep (4+ ft) Soil Sample
- ⊠ Geotechnical Soil Boring

Notes:
 1. Data Qualifiers: J = Estimated value.
 J- = Estimated value, biased low.
 2. BGS = below ground surface.



Source of photo: H-GAC, Texas aerial photograph, 2006.

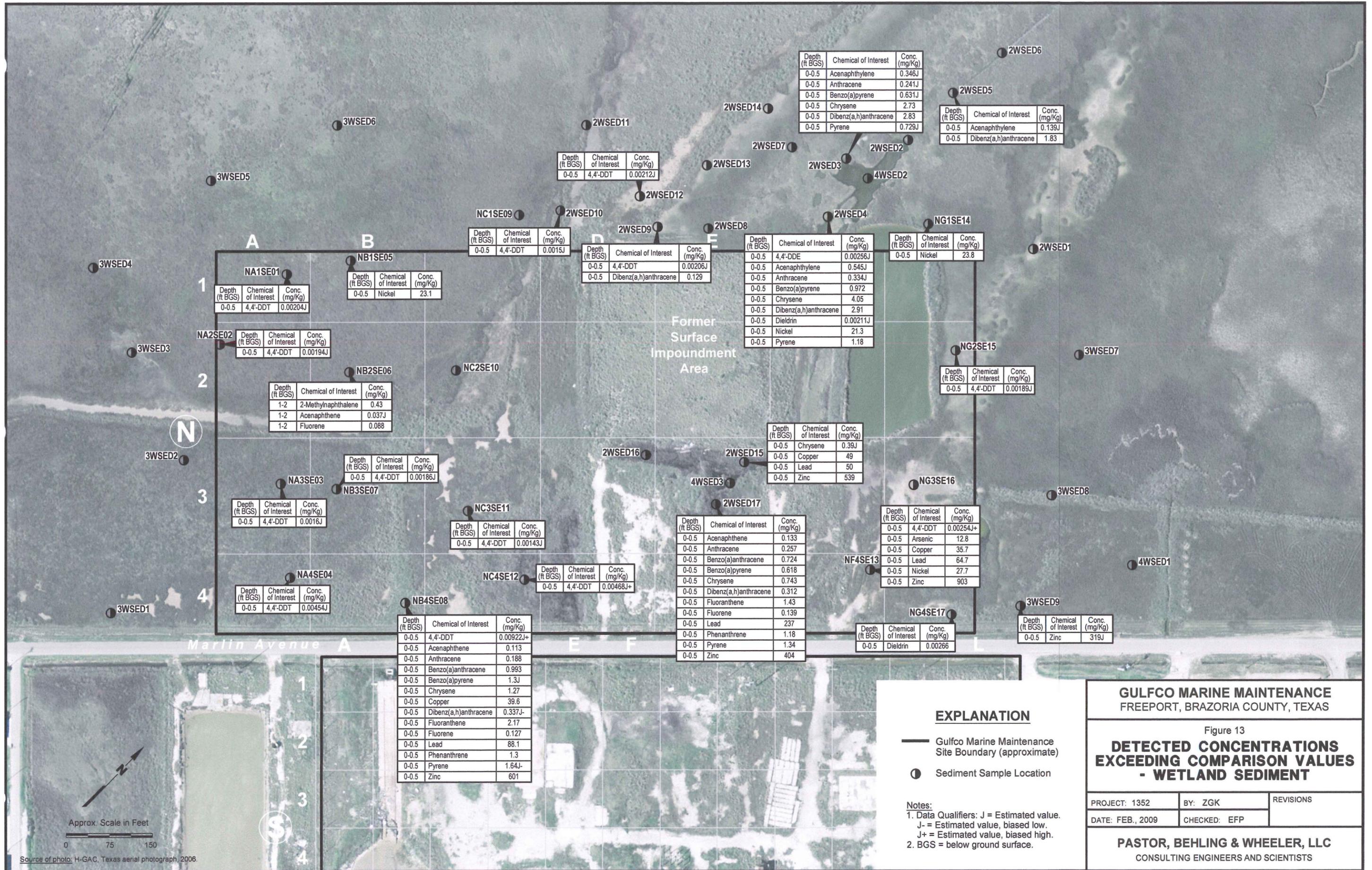
**GULFCO MARINE MAINTENANCE
 FREEPORT, BRAZORIA COUNTY, TEXAS**

Figure 12
**DETECTED CONCENTRATIONS
 EXCEEDING COMPARISON VALUES
 - NORTH AREA SOIL SAMPLES**

PROJECT: 1352	BY: ZGK	REVISIONS
DATE: FEB., 2009	CHECKED: EFP	

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Marlin Avenue



Depth (ft BGS)	Chemical of Interest	Conc. (mg/Kg)
0-0.5	4,4'-DDT	0.00212J

Depth (ft BGS)	Chemical of Interest	Conc. (mg/Kg)
0-0.5	Acenaphthylene	0.346J
0-0.5	Anthracene	0.241J
0-0.5	Benzo(a)pyrene	0.631J
0-0.5	Chrysene	2.73
0-0.5	Dibenz(a,h)anthracene	2.83
0-0.5	Pyrene	0.729J

Depth (ft BGS)	Chemical of Interest	Conc. (mg/Kg)
0-0.5	Acenaphthylene	0.139J
0-0.5	Dibenz(a,h)anthracene	1.83

Depth (ft BGS)	Chemical of Interest	Conc. (mg/Kg)
0-0.5	4,4'-DDT	0.00204J

Depth (ft BGS)	Chemical of Interest	Conc. (mg/Kg)
0-0.5	Nickel	23.1

Depth (ft BGS)	Chemical of Interest	Conc. (mg/Kg)
0-0.5	4,4'-DDT	0.0015J

Depth (ft BGS)	Chemical of Interest	Conc. (mg/Kg)
0-0.5	4,4'-DDT	0.00206J
0-0.5	Dibenz(a,h)anthracene	0.129

Depth (ft BGS)	Chemical of Interest	Conc. (mg/Kg)
0-0.5	4,4'-DDE	0.00256J
0-0.5	Acenaphthylene	0.545J
0-0.5	Anthracene	0.334J
0-0.5	Benzo(a)pyrene	0.972
0-0.5	Chrysene	4.05
0-0.5	Dibenz(a,h)anthracene	2.91
0-0.5	Dieldrin	0.00211J
0-0.5	Nickel	21.3
0-0.5	Pyrene	1.18

Depth (ft BGS)	Chemical of Interest	Conc. (mg/Kg)
0-0.5	Nickel	23.8

Depth (ft BGS)	Chemical of Interest	Conc. (mg/Kg)
0-0.5	4,4'-DDT	0.00194J

Depth (ft BGS)	Chemical of Interest	Conc. (mg/Kg)
1-2	2-Methylnaphthalene	0.43
1-2	Acenaphthene	0.037J
1-2	Fluorene	0.088

Depth (ft BGS)	Chemical of Interest	Conc. (mg/Kg)
0-0.5	4,4'-DDT	0.00186J

Depth (ft BGS)	Chemical of Interest	Conc. (mg/Kg)
0-0.5	4,4'-DDT	0.0016J

Depth (ft BGS)	Chemical of Interest	Conc. (mg/Kg)
0-0.5	4,4'-DDT	0.00143J

Depth (ft BGS)	Chemical of Interest	Conc. (mg/Kg)
0-0.5	4,4'-DDT	0.00468J+

Depth (ft BGS)	Chemical of Interest	Conc. (mg/Kg)
0-0.5	Acenaphthene	0.133
0-0.5	Anthracene	0.257
0-0.5	Benzo(a)anthracene	0.724
0-0.5	Benzo(a)pyrene	0.618
0-0.5	Chrysene	0.743
0-0.5	Dibenz(a,h)anthracene	0.312
0-0.5	Fluoranthene	1.43
0-0.5	Fluorene	0.139
0-0.5	Lead	237
0-0.5	Phenanthrene	1.18
0-0.5	Pyrene	1.34
0-0.5	Zinc	404

Depth (ft BGS)	Chemical of Interest	Conc. (mg/Kg)
0-0.5	4,4'-DDT	0.00254J+
0-0.5	Arsenic	12.8
0-0.5	Copper	35.7
0-0.5	Lead	64.7
0-0.5	Nickel	27.7
0-0.5	Zinc	903

Depth (ft BGS)	Chemical of Interest	Conc. (mg/Kg)
0-0.5	4,4'-DDT	0.00454J

Depth (ft BGS)	Chemical of Interest	Conc. (mg/Kg)
0-0.5	4,4'-DDT	0.00922J+
0-0.5	Acenaphthene	0.113
0-0.5	Anthracene	0.188
0-0.5	Benzo(a)anthracene	0.993
0-0.5	Benzo(a)pyrene	1.3J
0-0.5	Chrysene	1.27
0-0.5	Copper	39.6
0-0.5	Dibenz(a,h)anthracene	0.337J-
0-0.5	Fluoranthene	2.17
0-0.5	Fluorene	0.127
0-0.5	Lead	88.1
0-0.5	Phenanthrene	1.3
0-0.5	Pyrene	1.64J-
0-0.5	Zinc	601

EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- Sediment Sample Location

Notes:
 1. Data Qualifiers: J = Estimated value.
 J- = Estimated value, biased low.
 J+ = Estimated value, biased high.
 2. BGS = below ground surface.

GULFCO MARINE MAINTENANCE
 FREEPORT, BRAZORIA COUNTY, TEXAS

Figure 13
DETECTED CONCENTRATIONS EXCEEDING COMPARISON VALUES - WETLAND SEDIMENT

PROJECT: 1352	BY: ZGK	REVISIONS
DATE: FEB., 2009	CHECKED: EFP	

PASTOR, BEHLING & WHEELER, LLC
 CONSULTING ENGINEERS AND SCIENTISTS

Source of photo: H-GAC, Texas aerial photograph, 2006.



Chemical of Interest	Conc. (mg/L)
Acrolein	0.00929J
Dissolved Copper	0.011J
Total Mercury	0.00004J

Chemical of Interest	Conc. (mg/L)
Dissolved Copper	0.0053J
Dissolved Mercury	0.00011J
Total Mercury	0.00007J

Chemical of Interest	Conc. (mg/L)
Dissolved Copper	0.0068J
Total Manganese	0.34
Dissolved Manganese	0.33

EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- Wetland Surface Water Sample Location

Note:
Data Qualifier: J = Estimated value.



Approx. Scale in Feet
0 60 120

Source of photo: H-GAC, Texas aerial photograph, 2006.

**GULFCO MARINE MAINTENANCE
FREEPORT, BRAZORIA COUNTY, TEXAS**

Figure 14
**DETECTED CONCENTRATIONS
EXCEEDING COMPARISON VALUES
- WETLAND SURFACE WATER**

PROJECT: 1352	BY: ZGK	REVISIONS
DATE: FEB., 2009	CHECKED: EFP	

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CONSULTING ENGINEERS AND SCIENTISTS



EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- Pond Sediment Sample Location

Notes:
 1. All samples from 0-0.5 ft depth interval.
 2. Data Qualifier: J = Estimated value.

Chemical of Interest	Conc. (mg/Kg)
Zinc	614

Chemical of Interest	Conc. (mg/Kg)
Zinc	813

SPSE01

Small Pond

SPSE02

SPSE03

Chemical of Interest	Conc. (mg/Kg)
4,4'-DDT	0.00157J
Zinc	999



Approx. Scale in Feet
 0 60 120

Source of photo: H-GAC, Texas aerial photograph, 2006.

**GULFCO MARINE MAINTENANCE
 FREEPORT, BRAZORIA COUNTY, TEXAS**

Figure 15
**DETECTED CONCENTRATIONS
 EXCEEDING COMPARISON VALUES
 - PONDS SEDIMENT**

PROJECT: 1352	BY: ZGK	REVISIONS
DATE: FEB., 2009	CHECKED: EFP	

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Chemical of Interest	Conc. (mg/L)
Total Arsenic	0.013J
Total Thallium	0.0077J
Dissolved Silver	0.0027J

Chemical of Interest	Conc. (mg/L)
Total Arsenic	0.012J
Dissolved Silver	0.0021J

Chemical of Interest	Conc. (mg/L)
Total Thallium	0.0062J
Dissolved Silver	0.0029J

Chemical of Interest	Conc. (mg/L)
Dissolved Manganese	1.44
Total Manganese	0.89
Total Thallium	0.0032J
Dissolved Silver	0.00094J

Chemical of Interest	Conc. (mg/L)
Dissolved Manganese	1.29
Total Manganese	1.06
Dissolved Thallium	0.0014J
Dissolved Silver	0.00095J

Chemical of Interest	Conc. (mg/L)
Dissolved Manganese	0.82
Total Manganese	0.74
Dissolved Thallium	0.0019J
Dissolved Silver	0.0014J

EXPLANATION

— Gulfco Marine Maintenance Site Boundary (approximate)

△ Pond Surface Water Sample Location

Note:
Data Qualifier: J = Estimated value.



Approx. Scale in Feet



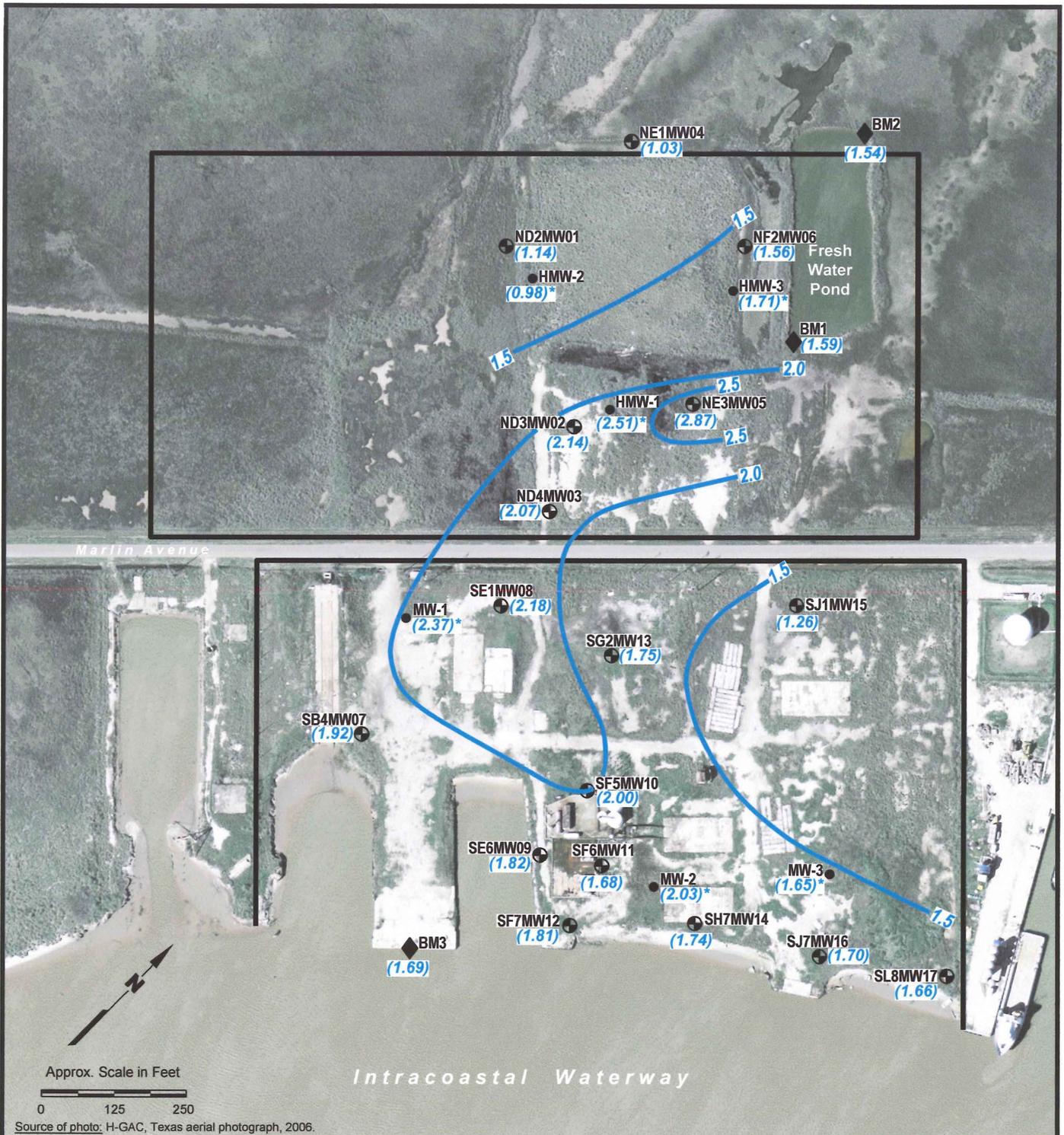
Source of photo: H-GAC, Texas aerial photograph, 2006.

**GULFCO MARINE MAINTENANCE
FREEPORT, BRAZORIA COUNTY, TEXAS**

Figure 16
**DETECTED CONCENTRATIONS
EXCEEDING COMPARISON VALUES
- PONDS SURFACE WATER**

PROJECT: 1352	BY: ZGK	REVISIONS
DATE: FEB., 2009	CHECKED: EFP	

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Approx. Scale in Feet
 0 125 250

Source of photo: H-GAC, Texas aerial photograph, 2006.

EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate) (1.69) Water-Level Elevation (Ft AMSL) Measured 10/05/06
- Monitoring Well Location Zone A * Elevation Not Used in Contouring
- Previous Monitoring Well Location -1.5- Potentiometric Surface Contour (Ft AMSL) Contour Interval = 0.5 Ft
- Staff Gauge

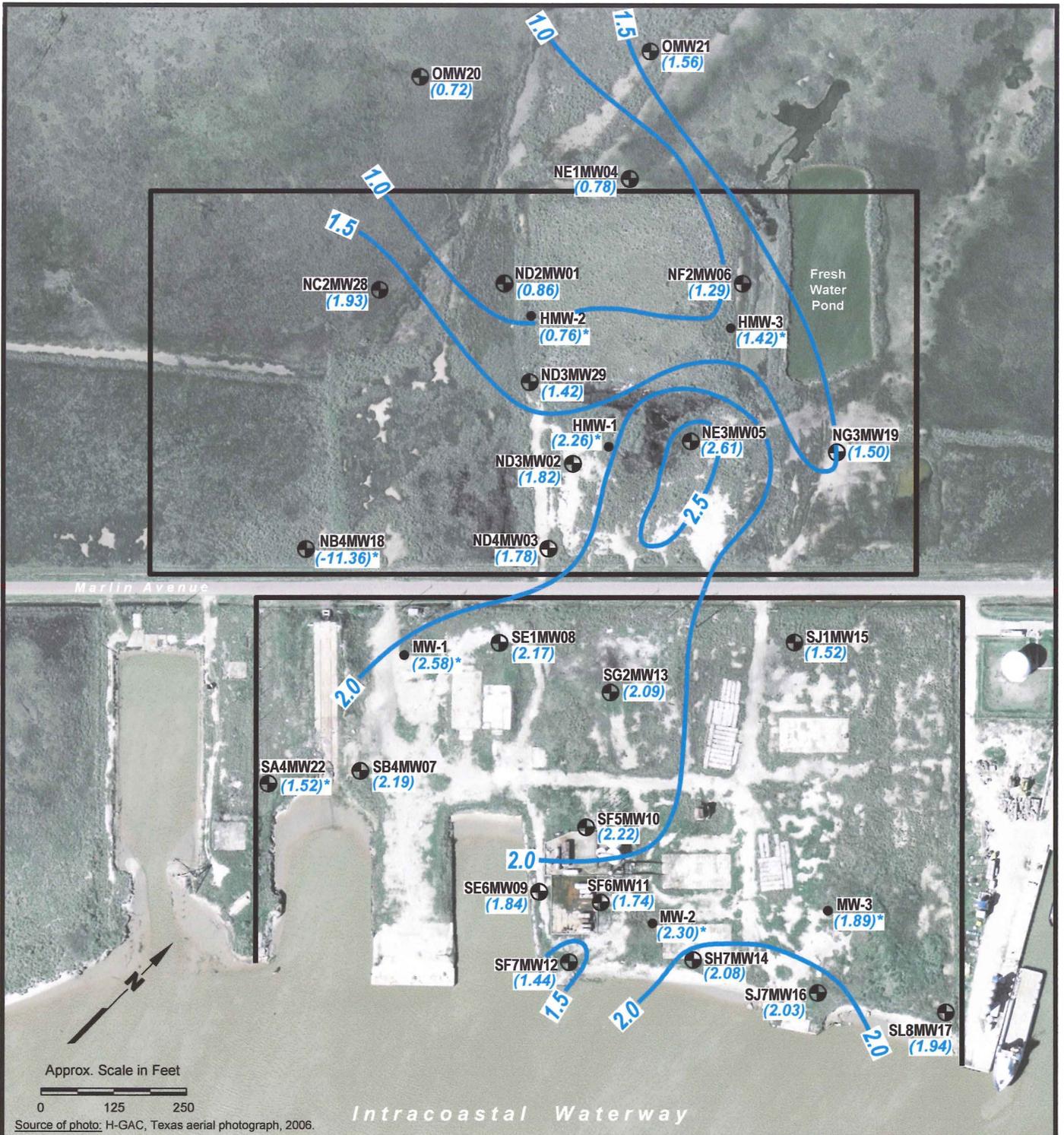
Note:
 Previous monitoring well and staff gauge measurements included for reference only and not used to construct potentiometric surface contours.

**GULFCO MARINE MAINTENANCE
 FREEPORT, BRAZORIA COUNTY, TEXAS**

Figure 17
**ZONE A
 POTENTIOMETRIC SURFACE
 OCTOBER 5, 2006**

PROJECT: 1352	BY: ZGK	REVISIONS
DATE: FEB., 2009	CHECKED: EFP	

PASTOR, BEHLING & WHEELER, LLC
 CONSULTING ENGINEERS AND SCIENTISTS



Source of photo: H-GAC, Texas aerial photograph, 2006.

EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- Monitoring Well Location Zone A
- Previous Monitoring Well Location
- (1.44) Water-Level Elevation (Ft AMSL) Measured 06/06/07
- 1.5- Potentiometric Surface Contour (Ft AMSL) Contour Interval = 0.5 Ft
- Elevation Not Used in Contouring

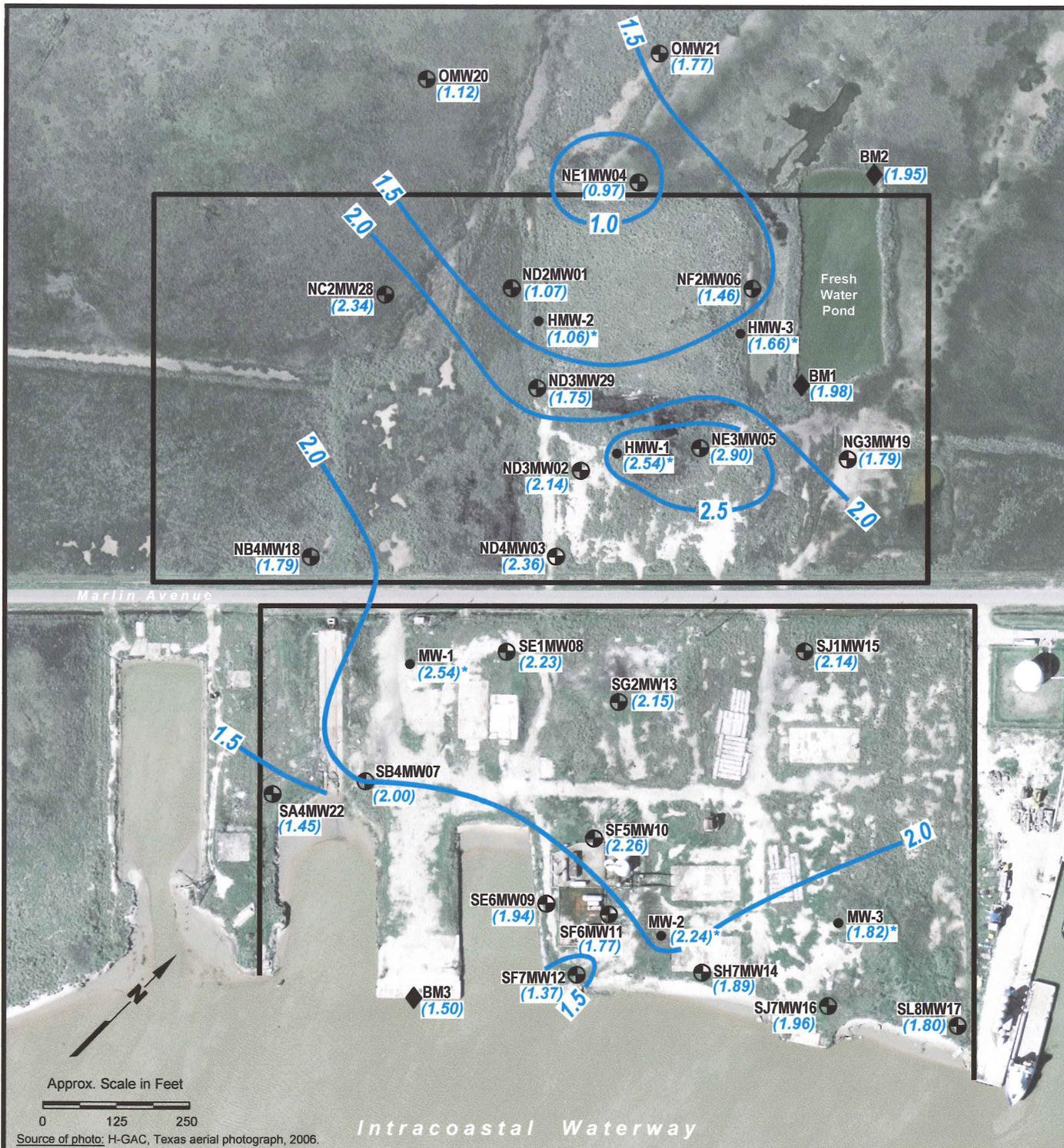
Notes:
 Previous monitoring well measurements included for reference only and not used to construct potentiometric surface contours. Water-level elevation at NB4MW18 not used in contour due to insufficient recovery time from sampling. Staff gauge measurements not measured on this date.

**GULFCO MARINE MAINTENANCE
 FREEPORT, BRAZORIA COUNTY, TEXAS**

Figure 18
**ZONE A
 POTENTIOMETRIC SURFACE
 JUNE 6, 2007**

PROJECT: 1352	BY: ZGK	REVISIONS
DATE: FEB., 2009	CHECKED: EFP	

PASTOR, BEHLING & WHEELER, LLC
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EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate) (1.37) Water-Level Elevation (Ft AMSL) Measured 09/06/07
- Monitoring Well Location Zone A (1.37) * Elevation Not Used in Contouring
- Previous Monitoring Well Location (1.37) -2.0- Potentiometric Surface Contour (Ft AMSL) Contour Interval = 0.5 Ft
- Staff Gauge

Note:
Previous monitoring well and staff gauge measurements included for reference only and not used to construct potentiometric surface contours.

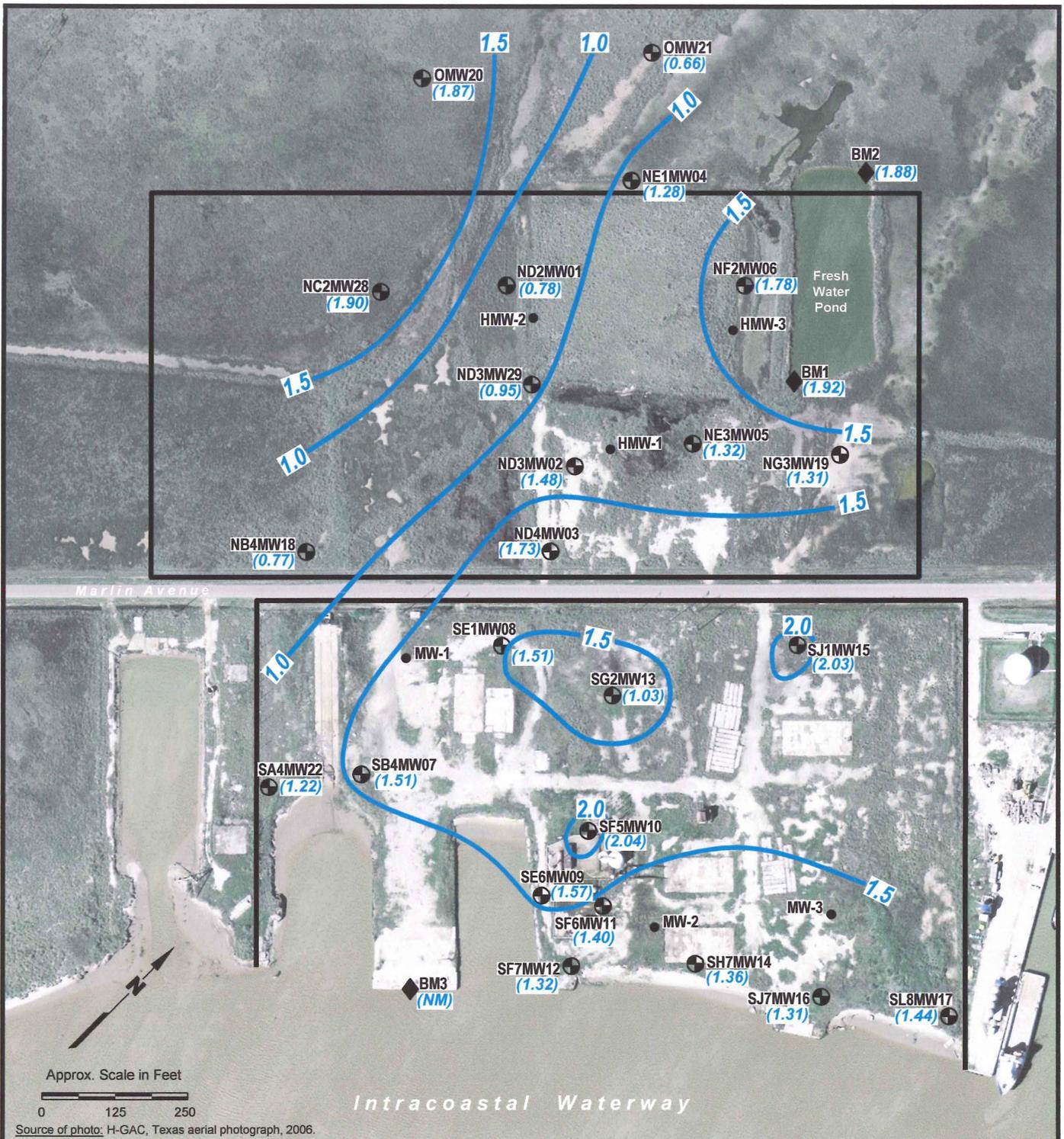
GULFCO MARINE MAINTENANCE FREEPORT, BRAZORIA COUNTY, TEXAS

Figure 19

ZONE A POTENTIOMETRIC SURFACE SEPTEMBER 6, 2007

PROJECT: 1352	BY: ZGK	REVISIONS
DATE: FEB., 2009	CHECKED: EFP	

PASTOR, BEHLING & WHEELER, LLC
CONSULTING ENGINEERS AND SCIENTISTS



Approx. Scale in Feet
 0 125 250
 Source of photo: H-GAC, Texas aerial photograph, 2006.

EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate) (1.32)
- Monitoring Well Location Zone A (1.32)
- Previous Monitoring Well Location (1.32)
- Staff Gauge (1.32)
- Potentiometric Surface Contour (Ft AMSL) Contour Interval = 0.5 Ft (1.5)
- Not Measured (NM)

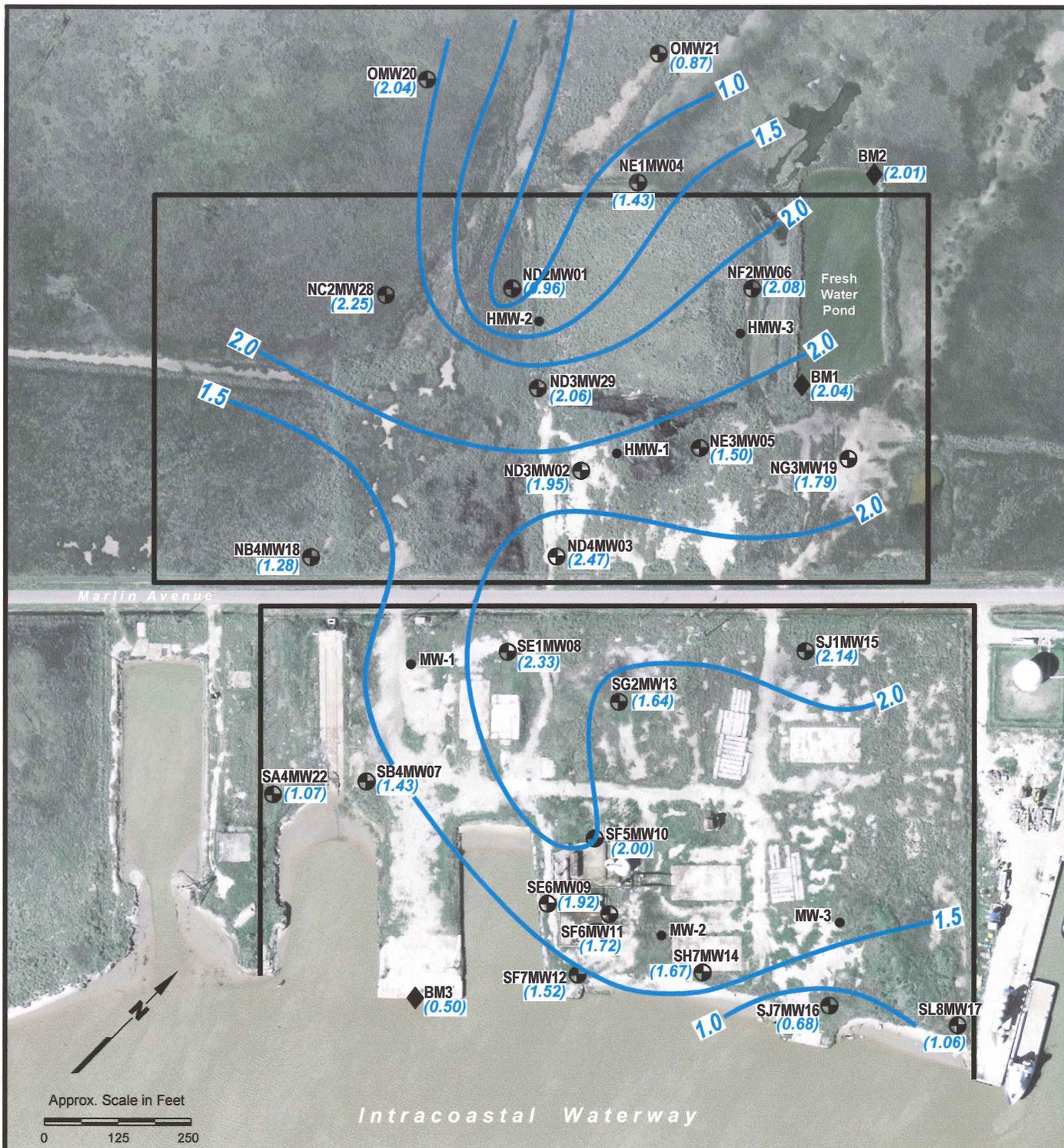
Note:
 Staff gauge measurements included for reference only and not used to construct potentiometric surface contours.

**GULFCO MARINE MAINTENANCE
 FREEPORT, BRAZORIA COUNTY, TEXAS**

Figure 20
**ZONE A
 POTENTIOMETRIC SURFACE
 NOVEMBER 7, 2007**

PROJECT: 1352	BY: ZGK	REVISIONS
DATE: FEB., 2009	CHECKED: EFP	

PASTOR, BEHLING & WHEELER, LLC
 CONSULTING ENGINEERS AND SCIENTISTS



EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- Staff Gauge
- Monitoring Well Location Zone A
- Previous Monitoring Well Location
- (1.52) Water-Level Elevation (Ft AMSL) Measured 12/03/07
- 1.5- Potentiometric Surface Contour (Ft AMSL) Contour Interval = 0.5 Ft

Note:
Staff gauge measurements included for reference only and not used to construct potentiometric surface contours.

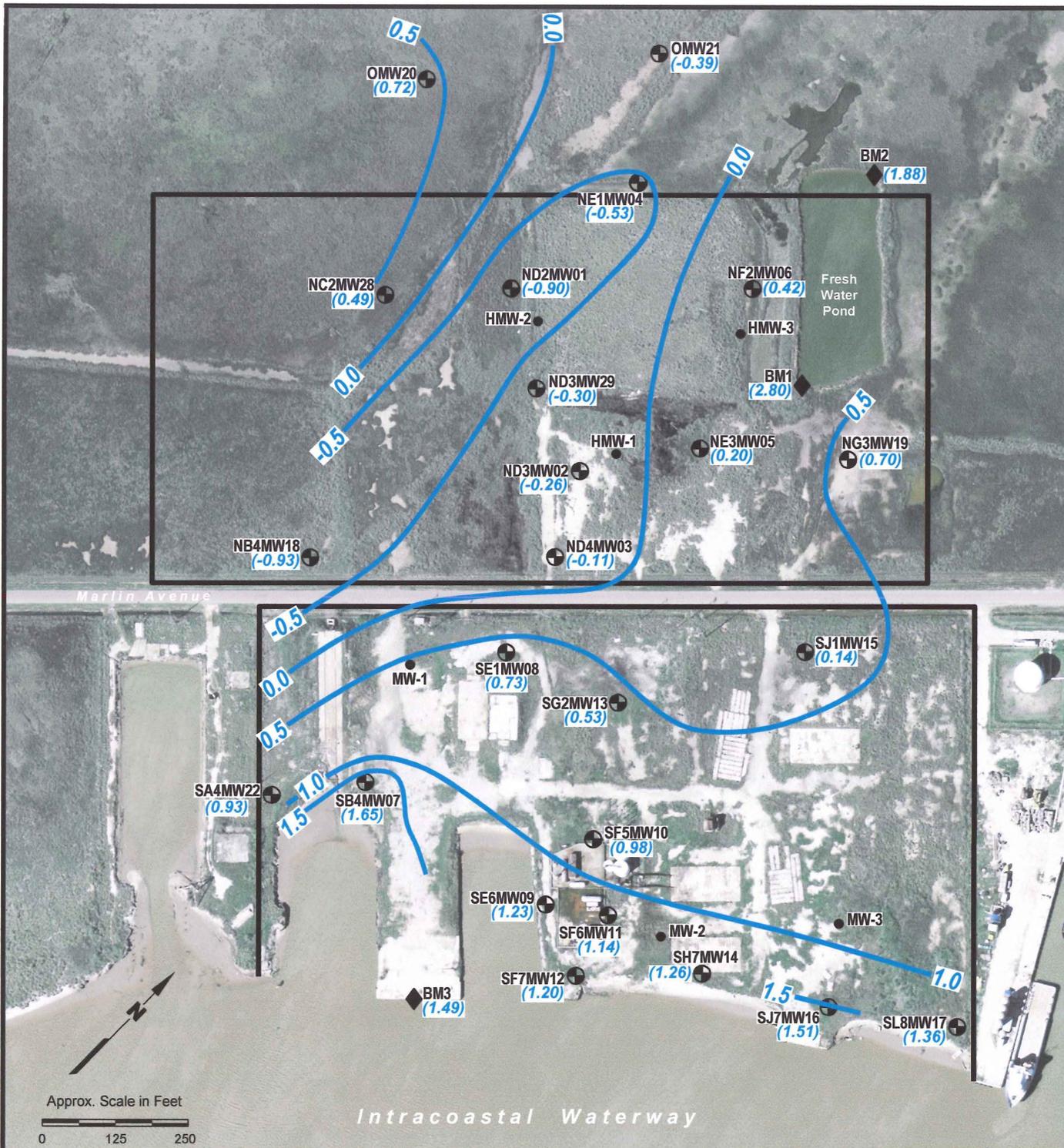
Source of photo: H-GAC, Texas aerial photograph, 2006.

**GULFCO MARINE MAINTENANCE
FREEPORT, BRAZORIA COUNTY, TEXAS**

Figure 21
**ZONE A
POTENTIOMETRIC SURFACE
DECEMBER 3, 2007**

PROJECT: 1352	BY: ZGK	REVISIONS
DATE: FEB., 2009	CHECKED: EFP	

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CONSULTING ENGINEERS AND SCIENTISTS



EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- ⊕ Monitoring Well Location Zone A
- Previous Monitoring Well Location
- ◆ Staff Gauge
- (1.52) Water-Level Elevation (Ft AMSL) Measured 06/17/08
- 1.5- Potentiometric Surface Contour (Ft AMSL) Contour Interval = 0.5 Ft

Note:
Staff gauge measurements included for reference only and not used to construct potentiometric surface contours.

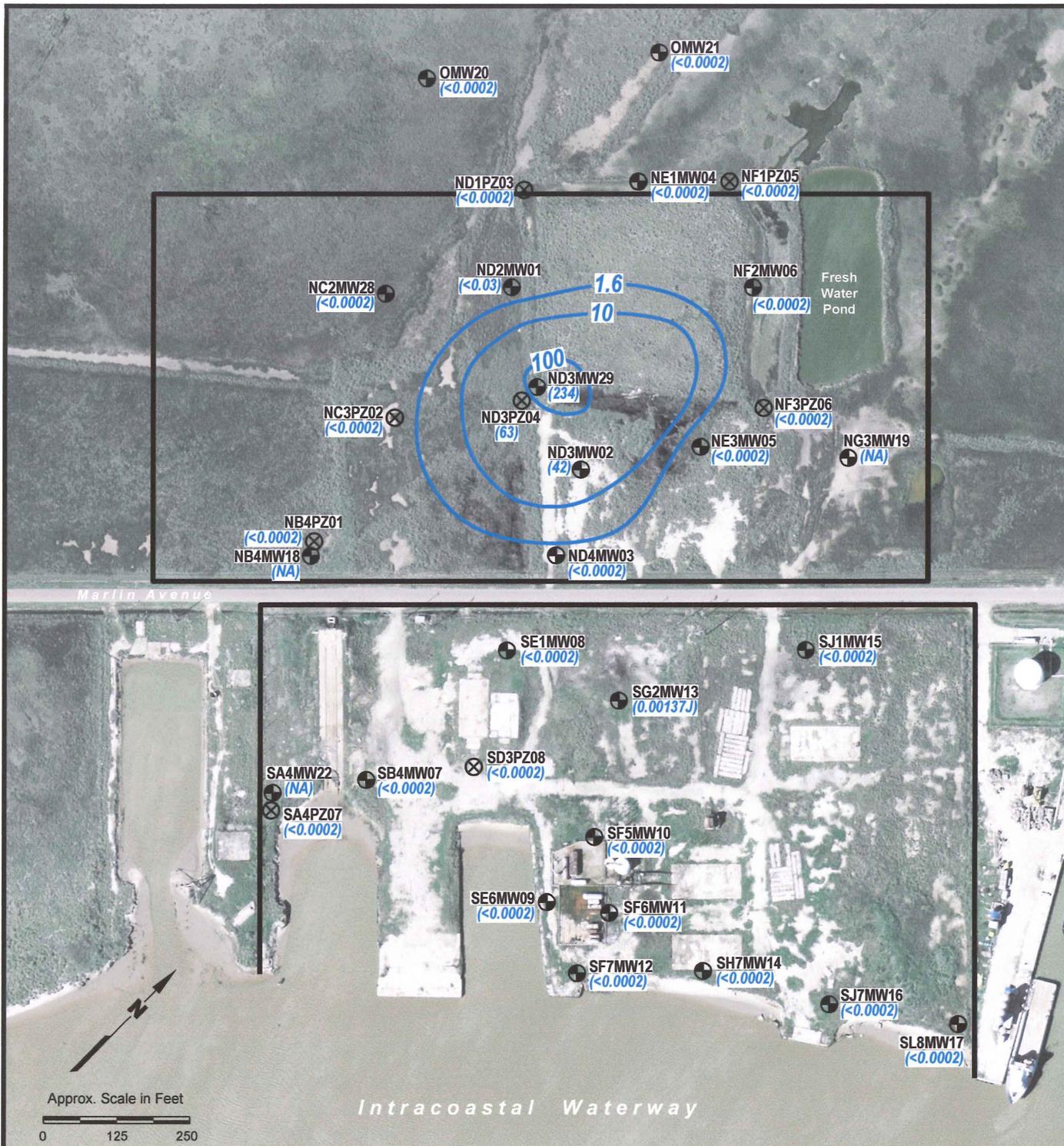
Source of photo: H-GAC, Texas aerial photograph, 2006.

**GULFCO MARINE MAINTENANCE
FREEPORT, BRAZORIA COUNTY, TEXAS**

Figure 22
**ZONE A
POTENTIOMETRIC SURFACE
JUNE 17, 2008**

PROJECT: 1352	BY: ZGK	REVISIONS
DATE: FEB., 2009	CHECKED: EFP	

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CONSULTING ENGINEERS AND SCIENTISTS



EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- ⊕ Monitoring Well Location - Zone A
- ⊗ Temporary Piezometer - Zone A
- (<0.03) 1,1,1-Trichloroethane (1,1,1-TCA) Concentration (mg/L)
- 10 — Concentration Contour (mg/L) Variable Contour Interval

Notes:
 1. Concentrations are for the most recent sample collected from each location.
 2. NA = Not analyzed for this compound.
 3. J = Estimated value.

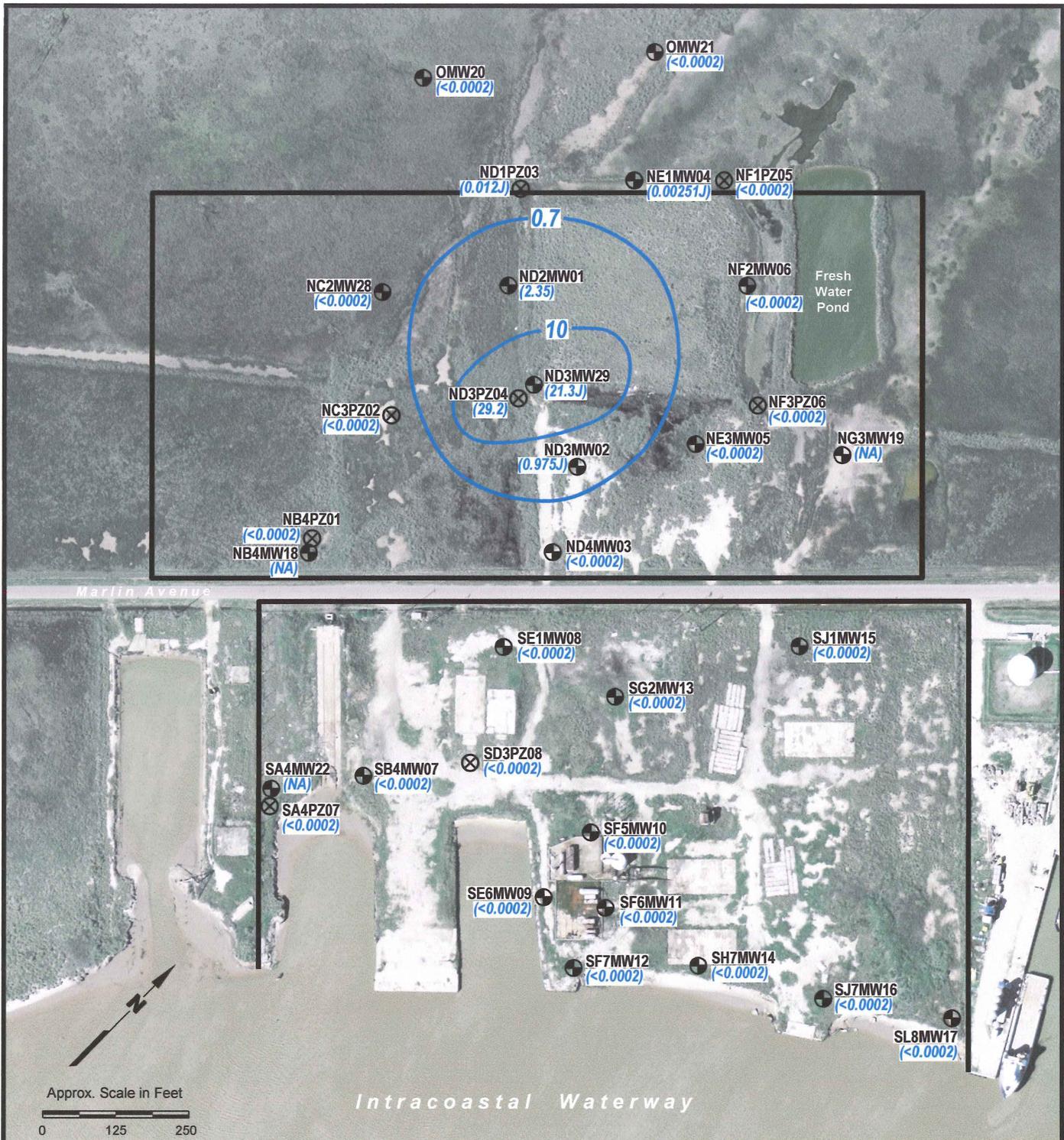
**GULFCO MARINE MAINTENANCE
 FREEPORT, BRAZORIA COUNTY, TEXAS**

Figure 23
**1,1,1-TCA CONCENTRATIONS IN
 ZONE A MONITORING WELLS**

PROJECT: 1352	BY: ZGK	REVISIONS
DATE: FEB., 2009	CHECKED: EFP	

PASTOR, BEHLING & WHEELER, LLC
 CONSULTING ENGINEERS AND SCIENTISTS

Source of photo: H-GAC, Texas aerial photograph, 2006.



EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- ⊕ Monitoring Well Location - Zone A
- ⊗ Temporary Piezometer - Zone A
- (2.35) 1,1-Dichloroethene (1,1-DCE) Concentration (mg/L)
- 0.7 — Concentration Contour (mg/L) Variable Contour Interval

Notes:
 1. Concentrations are for the most recent sample collected from each location.
 2. NA = Not analyzed for this compound.
 3. J = Estimated value.

**GULFCO MARINE MAINTENANCE
 FREEPORT, BRAZORIA COUNTY, TEXAS**

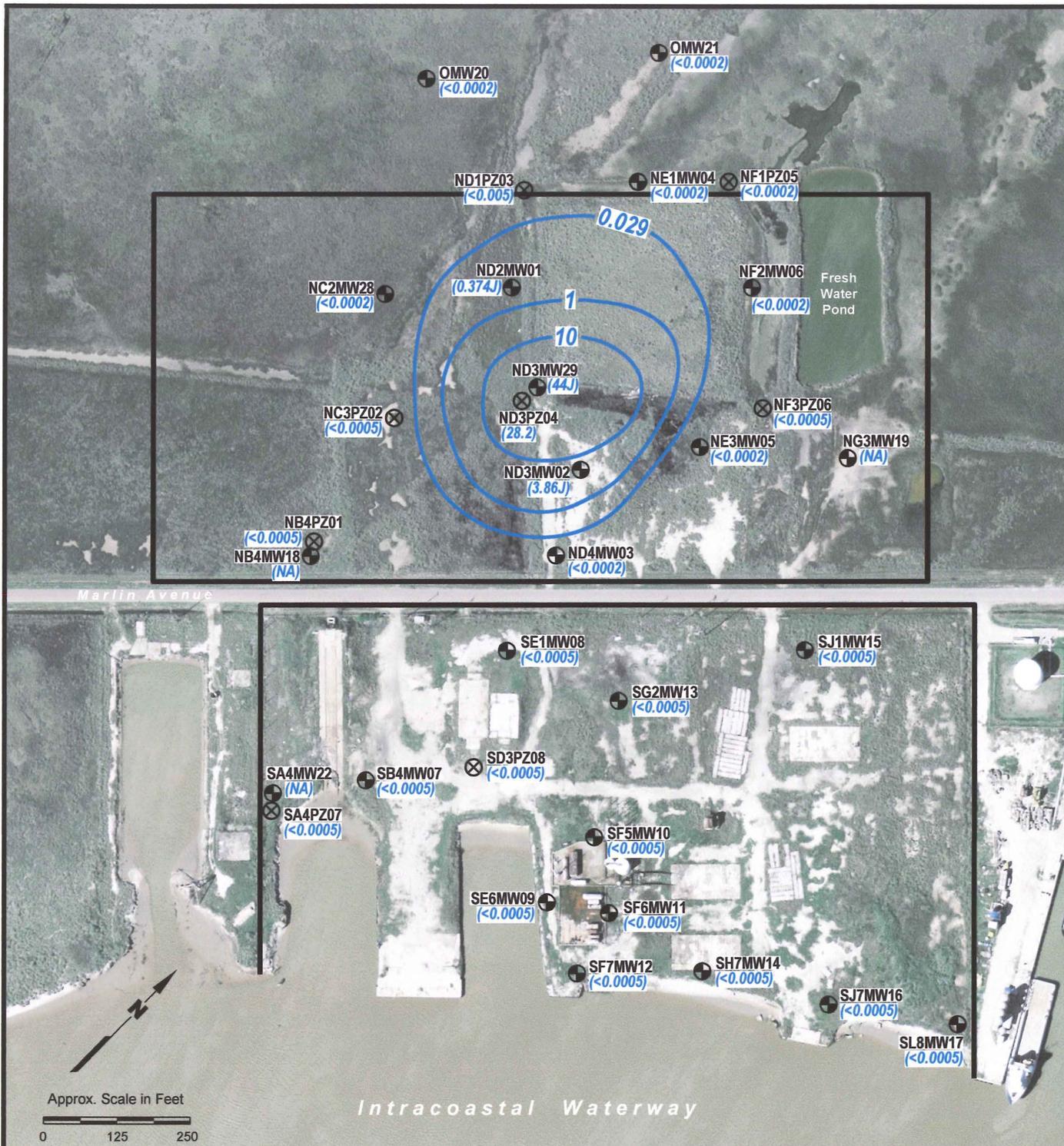
Figure 24

**1,1-DCE CONCENTRATIONS IN
 ZONE A MONITORING WELLS**

PROJECT: 1352	BY: ZGK	REVISIONS
DATE: FEB., 2009	CHECKED: EFP	

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Source of photo: H-GAC, Texas aerial photograph, 2006.



EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- ⊕ Monitoring Well Location - Zone A
- ⊗ Temporary Piezometer - Zone A
- (3.86J) 1,2,3-Trichloropropane (1,2,3-TCP) Concentration (mg/L)
- 10 — Concentration Contour (mg/L) Variable Contour Interval

Notes:
 1. Concentrations are for the most recent sample collected from each location.
 2. NA = Not analyzed for this compound.
 3. J = Estimated value.

**GULFCO MARINE MAINTENANCE
 FREEPORT, BRAZORIA COUNTY, TEXAS**

Figure 25
**1,2,3-TCP CONCENTRATIONS IN
 ZONE A MONITORING WELLS**

PROJECT: 1352	BY: ZGK	REVISIONS
DATE: FEB., 2009	CHECKED: EFP	

PASTOR, BEHLING & WHEELER, LLC
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Source of photo: H-GAC, Texas aerial photograph, 2006.



EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- ⊕ Monitoring Well Location - Zone A
- ⊗ Temporary Piezometer - Zone A
- (1.25) 1,2-Dichloroethane (1,2-DCA) Concentration (mg/L)
- 0.5- Concentration Contour (mg/L) Variable Contour Interval

Notes:
 1. Concentrations are from the most recent sample collected from each location.
 2. NA = Not analyzed for this compound.

**GULFCO MARINE MAINTENANCE
 FREEPORT, BRAZORIA COUNTY, TEXAS**

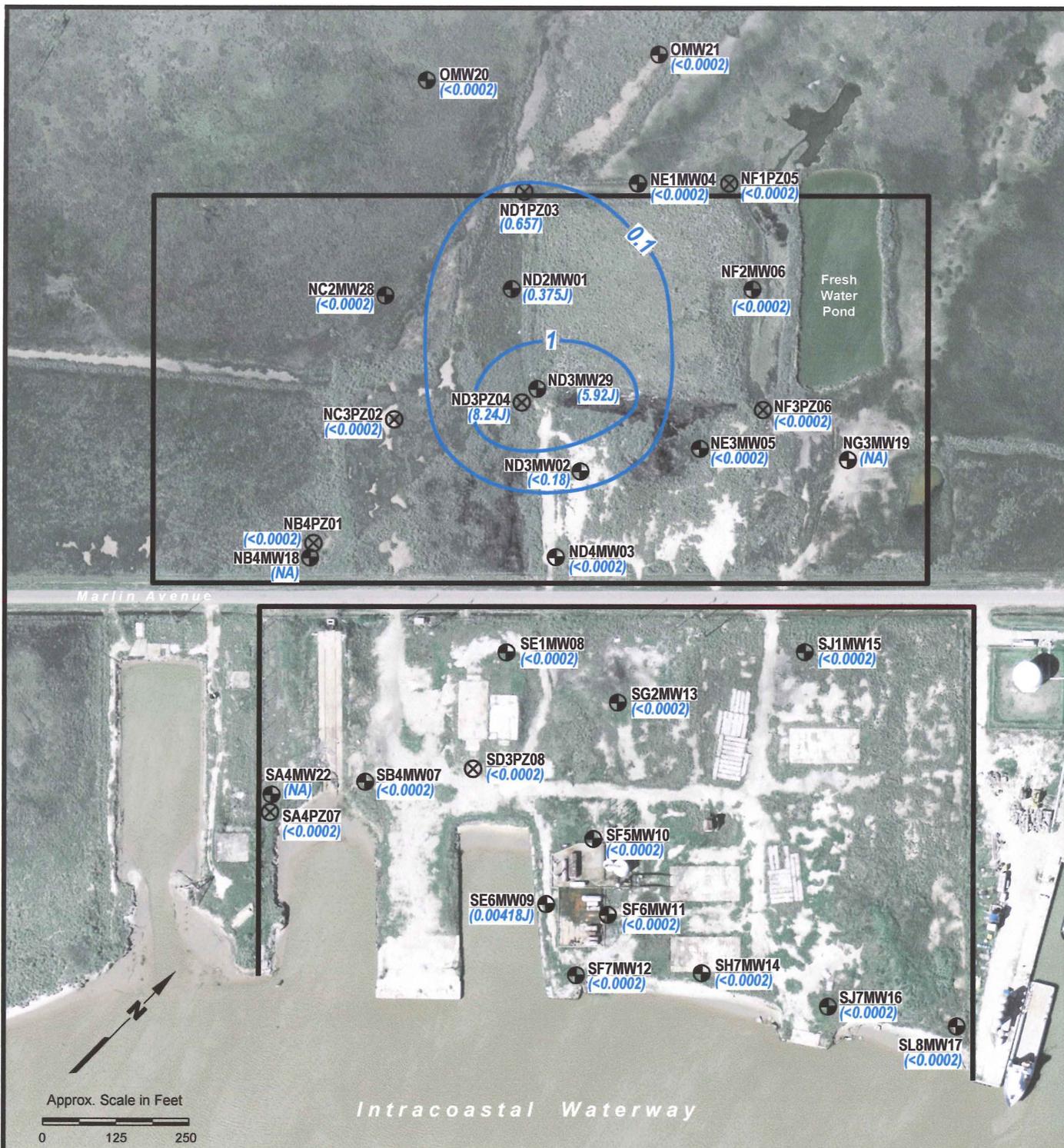
Figure 26

**1,2-DCA CONCENTRATIONS IN
 ZONE A MONITORING WELLS**

PROJECT: 1352	BY: ZGK	REVISIONS
DATE: FEB., 2009	CHECKED: EFP	

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Source of photo: H-GAC, Texas aerial photograph, 2006.



EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- ⊕ Monitoring Well Location - Zone A
- ⊗ Temporary Piezometer - Zone A
- (1.25) Benzene Concentration (mg/L)
- 0.1 — Concentration Contour (mg/L)
Variable Contour Interval

Notes:

1. Concentrations are for the most recent sample collected from each location.
2. NA = Not analyzed for this compound.
3. J = Estimated value.

GULFCO MARINE MAINTENANCE FREEPORT, BRAZORIA COUNTY, TEXAS

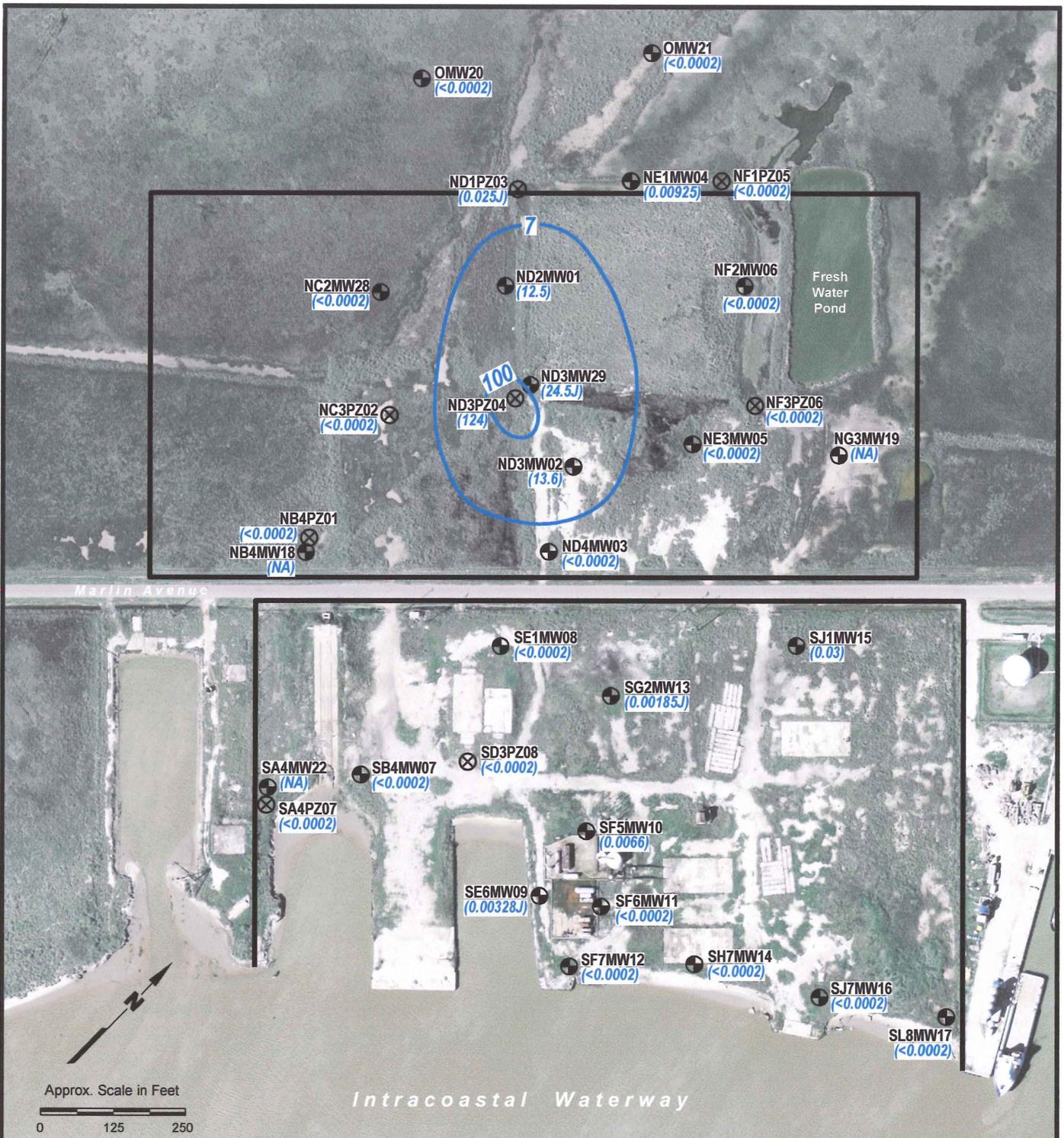
Figure 27

BENZENE CONCENTRATIONS IN ZONE A MONITORING WELLS

PROJECT: 1352	BY: ZGK	REVISIONS
DATE: FEB., 2009	CHECKED: EFP	

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Source of photo: H-GAC, Texas aerial photograph, 2006.



EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- Monitoring Well Location - Zone A
- ⊗ Temporary Piezometer - Zone A
- (12.5) Cis-1,2-Dichloroethene (cis-1,2-DCE) Concentration (mg/L)
- 7 — Concentration Contour (mg/L) Variable Contour Interval

Notes:
 1. Concentrations are for the most recent sample collected from each location.
 2. NA = Not analyzed for this compound.
 3. J = Estimated value.

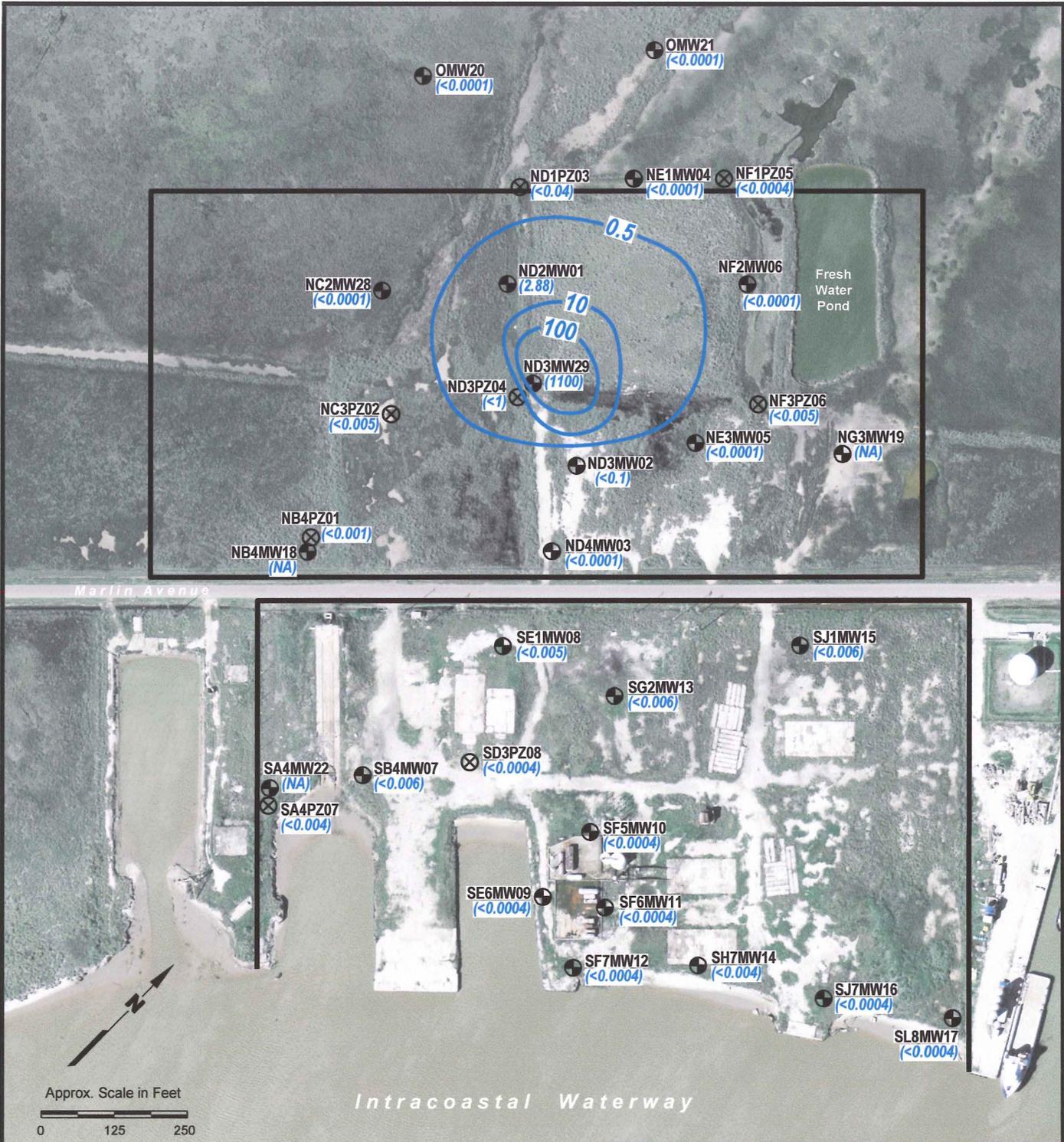
**GULFCO MARINE MAINTENANCE
 FREEPORT, BRAZORIA COUNTY, TEXAS**

Figure 28
**CIS-1,2-DCE CONCENTRATIONS
 IN ZONE A MONITORING WELLS**

PROJECT: 1352	BY: ZGK	REVISIONS
DATE: FEB., 2009	CHECKED: EFP	

PASTOR, BEHLING & WHEELER, LLC
 CONSULTING ENGINEERS AND SCIENTISTS

Source of photo: H-GAC, Texas aerial photograph, 2006.



Approx. Scale in Feet
 0 125 250

EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- ⊕ Monitoring Well Location - Zone A
- ⊗ Temporary Piezometer - Zone A
- (<0.1) Methylene Chloride Concentration (mg/L)
- 0.5 — Concentration Contour (mg/L) Variable Contour Interval

Notes:
 1. Concentrations are for the most recent sample collected from each location.
 2. NA = Not analyzed for this compound.

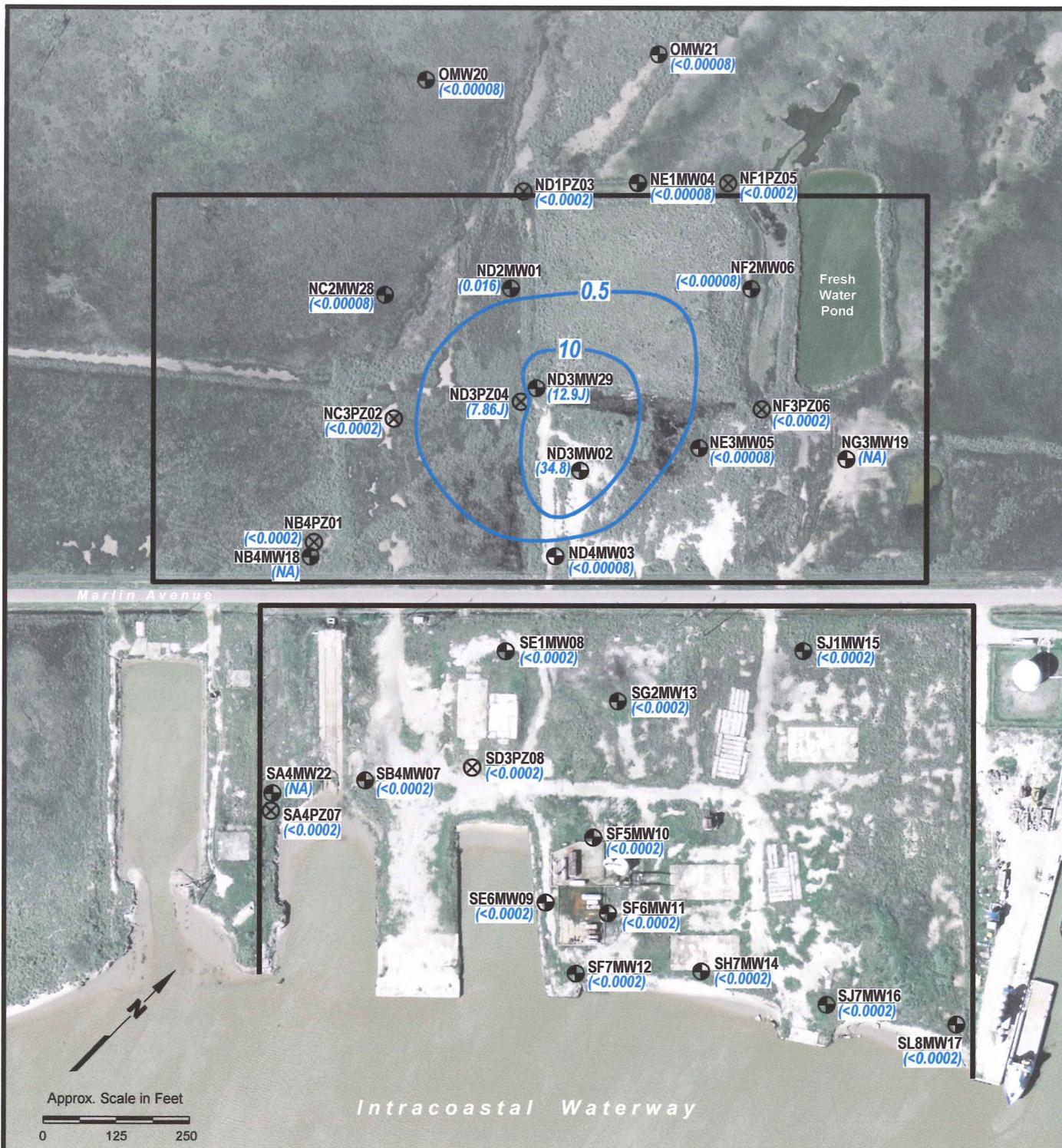
**GULFCO MARINE MAINTENANCE
 FREEPORT, BRAZORIA COUNTY, TEXAS**

Figure 29
**METHYLENE CHLORIDE
 CONCENTRATIONS IN
 ZONE A MONITORING WELLS**

PROJECT: 1352	BY: ZGK	REVISIONS
DATE: FEB., 2009	CHECKED: EFP	

PASTOR, BEHLING & WHEELER, LLC
 CONSULTING ENGINEERS AND SCIENTISTS

Source of photo: H-GAC, Texas aerial photograph, 2006.



Approx. Scale in Feet
 0 125 250

EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- ⊕ Monitoring Well Location - Zone A
- ⊗ Temporary Piezometer - Zone A
- (7.86J) Tetrachloroethene (PCE) Concentration (mg/L)
- 0.5- Concentration Contour (mg/L) Variable Contour Interval

Notes:

1. Concentrations are for the most recent sample collected from each location.
2. NA = Not analyzed for this compound.
3. J = Estimated value.

GULFCO MARINE MAINTENANCE FREEPORT, BRAZORIA COUNTY, TEXAS

Figure 30

PCE CONCENTRATIONS IN ZONE A MONITORING WELLS

PROJECT: 1352

BY: ZGK

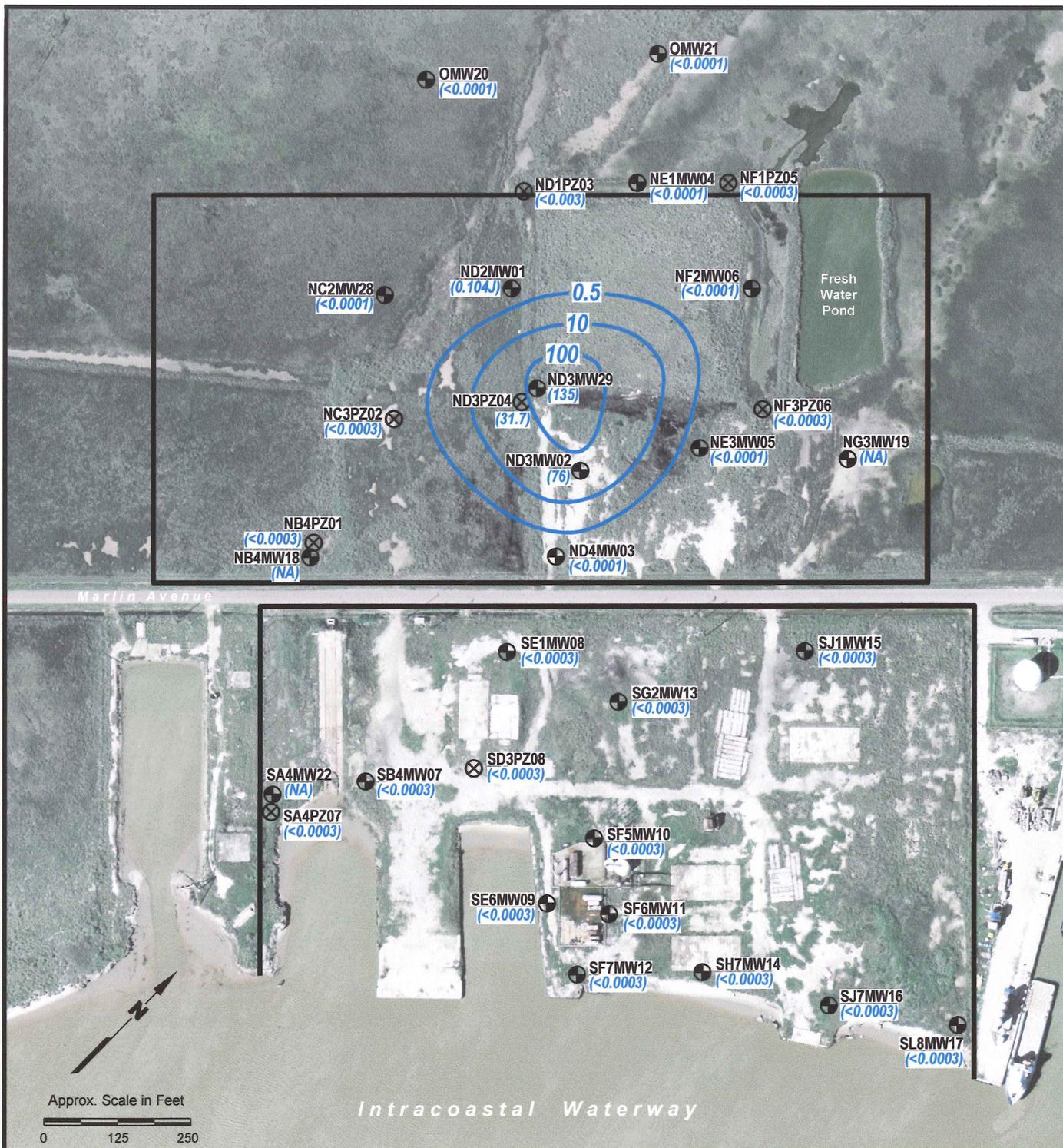
REVISIONS

DATE: FEB., 2009

CHECKED: EFP

PASTOR, BEHLING & WHEELER, LLC
 CONSULTING ENGINEERS AND SCIENTISTS

Source of photo: H-GAC, Texas aerial photograph, 2006.



EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- ⊕ Monitoring Well Location - Zone A
- ⊗ Temporary Piezometer - Zone A
- (31.7) Trichloroethene (TCE) Concentration (mg/L)
- 0.5— Concentration Contour (mg/L) Variable Contour Interval

Notes:

1. Concentrations are for the most recent sample collected from each location.
2. NA = Not analyzed for this compound.
3. J = Estimated value.

**GULFCO MARINE MAINTENANCE
FREEPORT, BRAZORIA COUNTY, TEXAS**

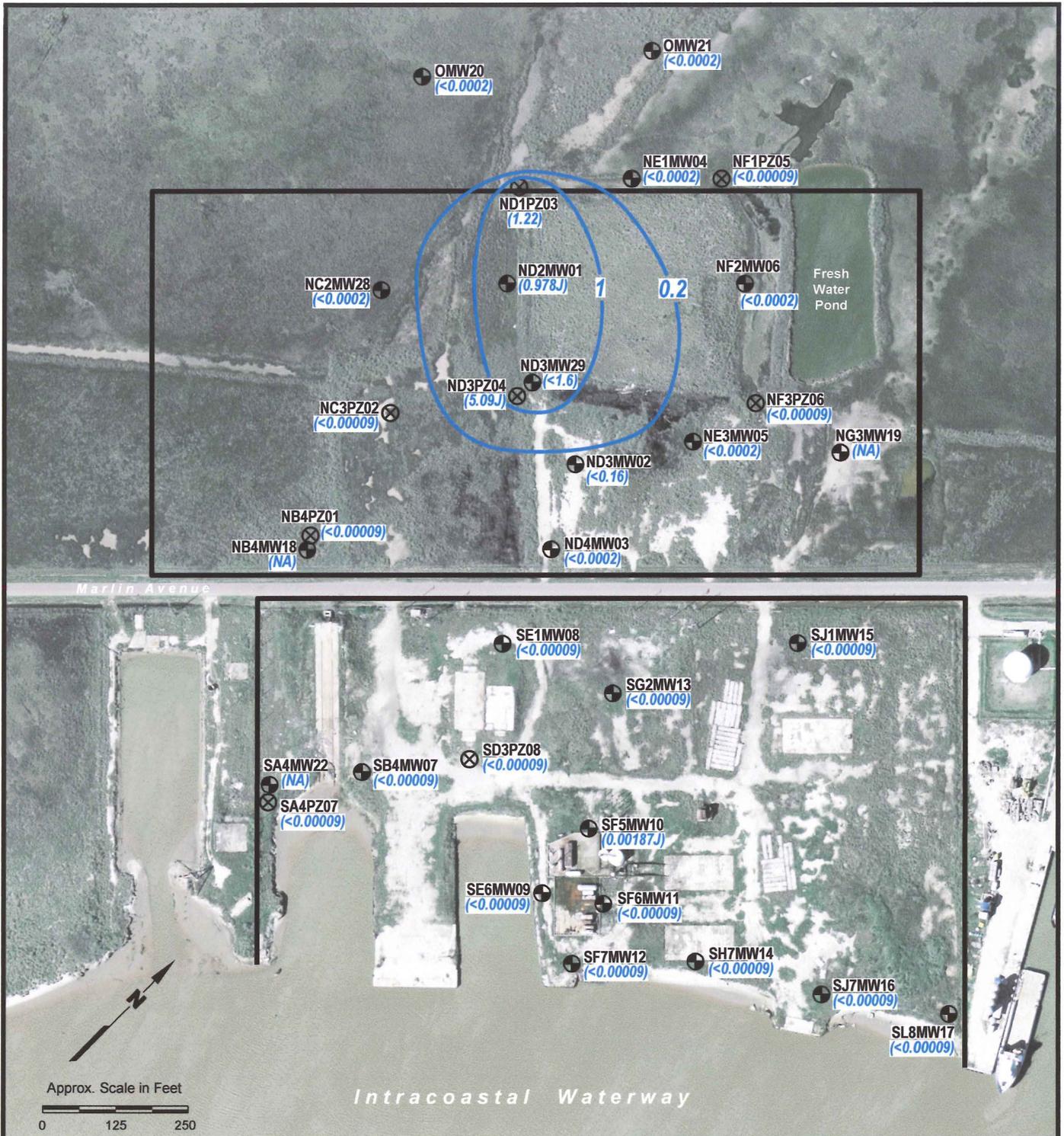
Figure 31

**TCE CONCENTRATIONS IN
ZONE A MONITORING WELLS**

PROJECT: 1352	BY: ZGK	REVISIONS
DATE: FEB., 2009	CHECKED: EFP	

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CONSULTING ENGINEERS AND SCIENTISTS

Source of photo: H-GAC, Texas aerial photograph, 2006.



EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- ⊕ Monitoring Well Location - Zone A
- ⊗ Temporary Piezometer - Zone A
- (1.22) Vinyl Chloride Concentration (mg/L)
- 0.2— Concentration Contour (mg/L) Variable Contour Interval

Notes:
 1. Concentrations are for the most recent sample collected from each location.
 2. NA = Not analyzed for this compound.
 3. J = Estimated value.

**GULFCO MARINE MAINTENANCE
 FREEPORT, BRAZORIA COUNTY, TEXAS**

Figure 32
**VINYL CHLORIDE
 CONCENTRATIONS IN
 ZONE A MONITORING WELLS**

PROJECT: 1352	BY: ZGK	REVISIONS
DATE: FEB., 2009	CHECKED: EFP	

PASTOR, BEHLING & WHEELER, LLC
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Source of photo: H-GAC, Texas aerial photograph, 2006.



GULFCO MARINE MAINTENANCE
 FREEPORT, BRAZORIA COUNTY, TEXAS

Figure 33
ZONE B
POTENTIOMETRIC SURFACE
JUNE 6, 2007

EXPLANATION

-  Gulfco Marine Maintenance Site Boundary (approximate)
-  Monitoring Well Location - Zone B
- (1.89) Water-Level Elevation (Ft AMSL) Measured 06/06/07
- 2.0— Potentiometric Surface Contour (Ft AMSL) Contour Interval = 0.1 Ft

PROJECT: 1352	BY: ZGK	REVISIONS
DATE: FEB., 2009	CHECKED: EFP	

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Source of photo: H-GAC, Texas aerial photograph, 2006.



**GULFCO MARINE MAINTENANCE
FREEPORT, BRAZORIA COUNTY, TEXAS**

Figure 34
**ZONE B
POTENTIOMETRIC SURFACE
SEPTEMBER 6, 2007**

EXPLANATION

-  Gulfco Marine Maintenance Site Boundary (approximate)
-  Monitoring Well Location - Zone B
- (2.29) Water-Level Elevation (Ft AMSL) Measured 09/06/07
- 2.0— Potentiometric Surface Contour (Ft AMSL) Contour Interval = 0.1 Ft

PROJECT: 1352

BY: ZGK

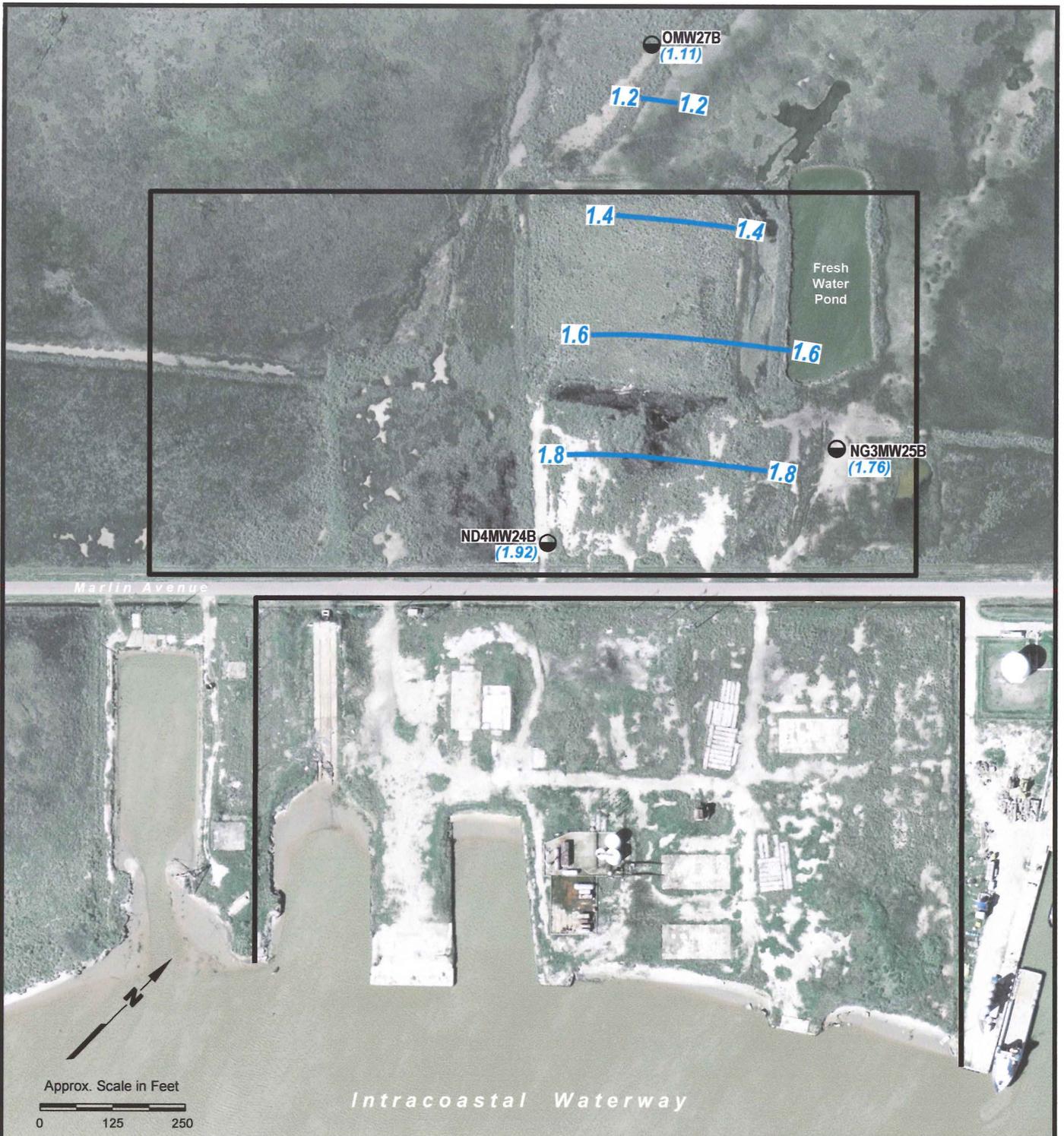
REVISIONS

DATE: FEB., 2009

CHECKED: EFP

PASTOR, BEHLING & WHEELER, LLC
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Source of photo: H-GAC, Texas aerial photograph, 2006.



**GULFCO MARINE MAINTENANCE
FREEPORT, BRAZORIA COUNTY, TEXAS**

Figure 35
**ZONE B
POTENTIOMETRIC SURFACE
NOVEMBER 7, 2007**

EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- Monitoring Well Location - Zone B
- (1.92) Water-Level Elevation (Ft AMSL) Measured 11/07/07
- 1.6— Potentiometric Surface Contour (Ft AMSL) Contour Interval = 0.2 Ft

PROJECT: 1352

BY: ZGK

REVISIONS

DATE: FEB., 2009

CHECKED: EFP

PASTOR, BEHLING & WHEELER, LLC
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Source of photo: H-GAC, Texas aerial photograph, 2006.



**GULFCO MARINE MAINTENANCE
FREEPORT, BRAZORIA COUNTY, TEXAS**

Figure 36
**ZONE B
POTENTIOMETRIC SURFACE
DECEMBER 3, 2007**

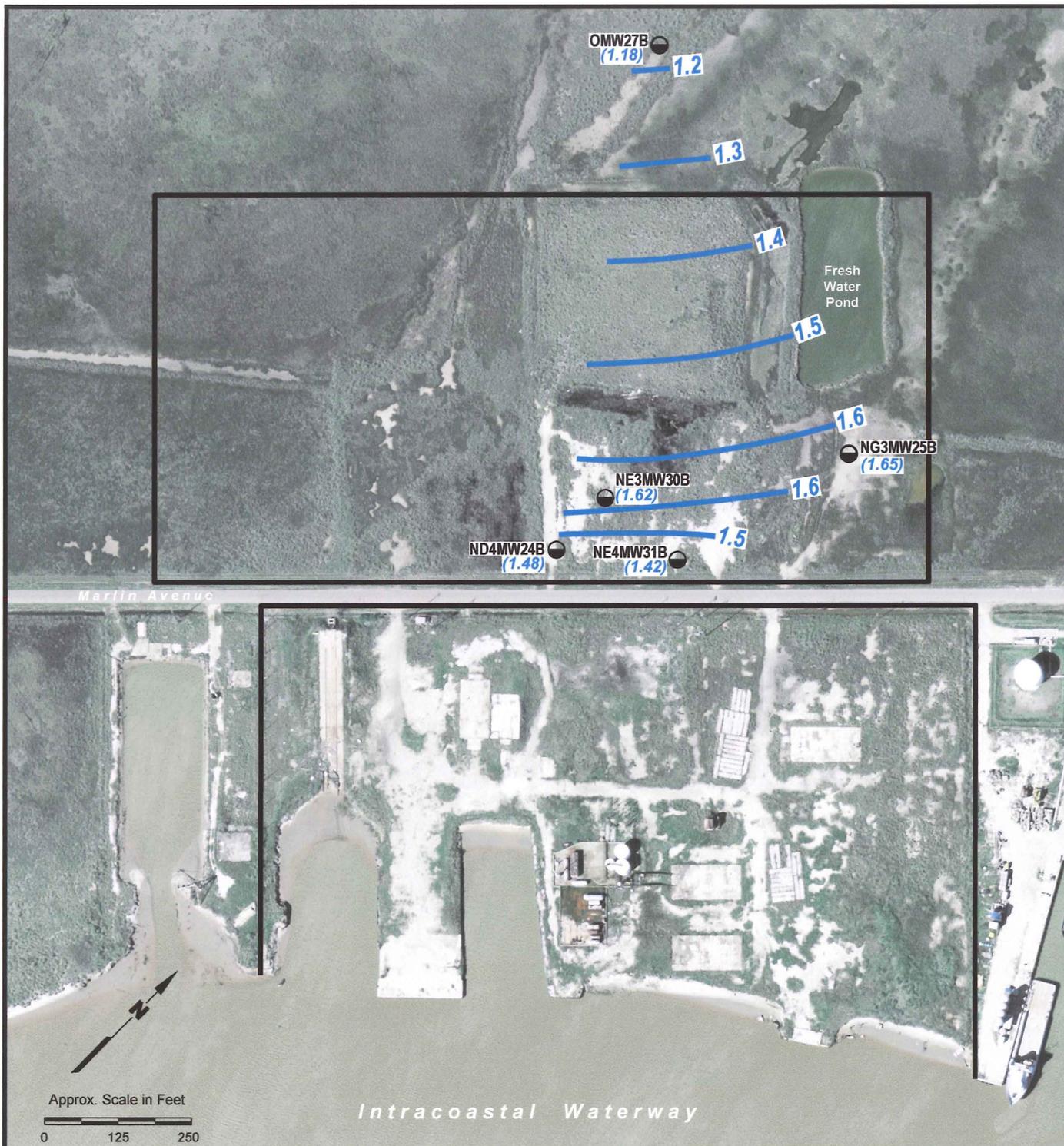
PROJECT: 1352	BY: ZGK	REVISIONS
DATE: FEB., 2009	CHECKED: EFP	

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EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- Monitoring Well Location - Zone B
- (2.38) Water-Level Elevation (Ft AMSL) Measured 12/03/07
- 2.0— Potentiometric Surface Contour (Ft AMSL) Contour Interval = 0.2 Ft

Source of photo: H-GAC, Texas aerial photograph, 2006.



GULFCO MARINE MAINTENANCE
 FREEPORT, BRAZORIA COUNTY, TEXAS

Figure 37
ZONE B
POTENTIOMETRIC SURFACE
JULY 30, 2008

EXPLANATION

-  Gulfco Marine Maintenance Site Boundary (approximate)
-  Monitoring Well Location - Zone B
- (1.48) Water-Level Elevation (Ft AMSL) Measured 7/30/08
- 1.5— Potentiometric Surface Contour (Ft AMSL) Contour Interval = 0.1 Ft

PROJECT: 1352

BY: ZGK

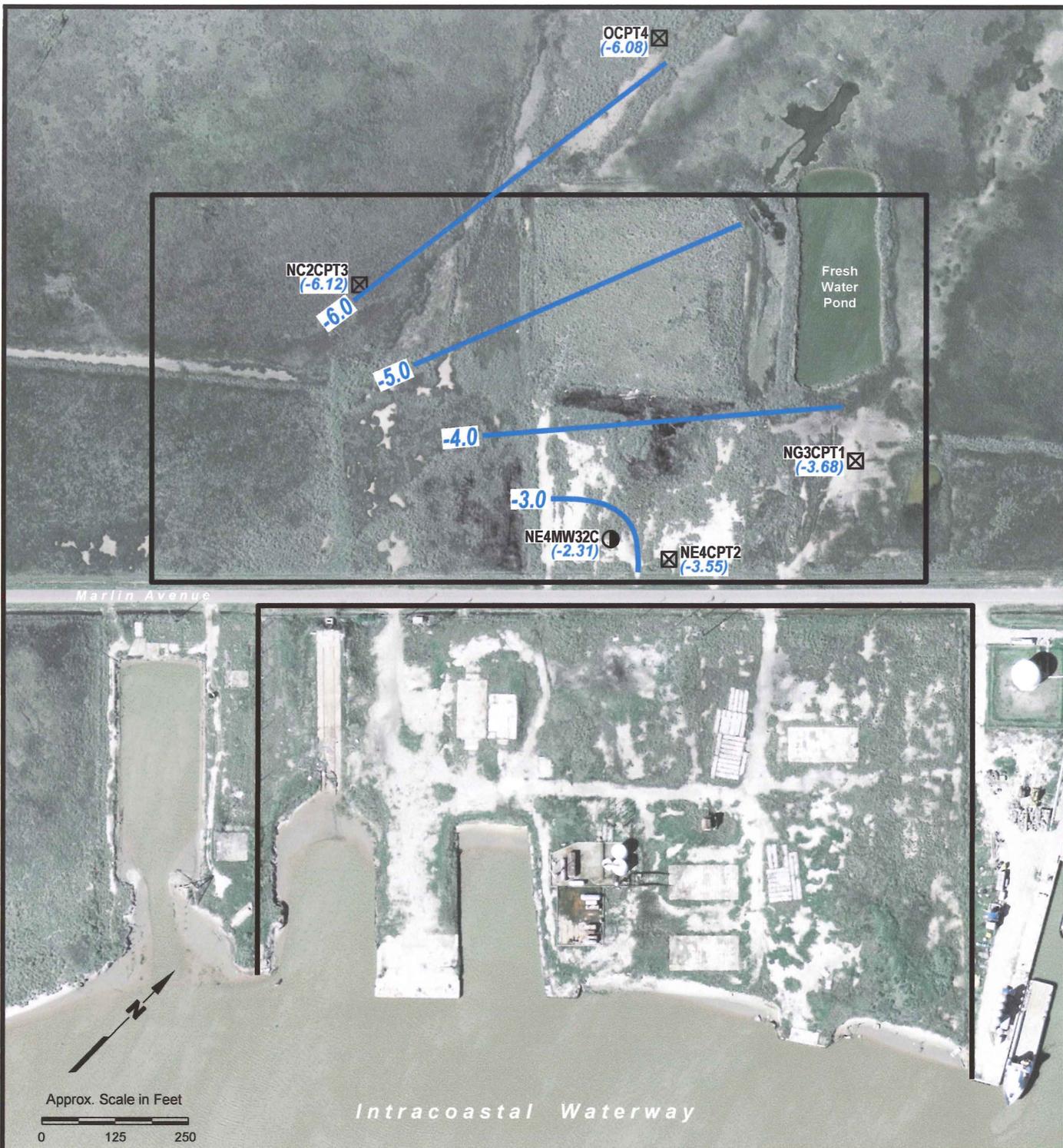
REVISIONS

DATE: FEB., 2009

CHECKED: EFP

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Source of photo: H-GAC, Texas aerial photograph, 2006.



**GULFCO MARINE MAINTENANCE
FREEPORT, BRAZORIA COUNTY, TEXAS**

Figure 38
**ZONE C
POTENTIOMETRIC SURFACE
JUNE 17, 2008**

EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- Monitoring Well Location - Zone C
- CPT Piezometer Location - Zone C
- (-6.12) Water-Level Elevation (Ft AMSL) Measured 6/17/08
- 3.0- Potentiometric Surface Contour (Ft AMSL) Contour Interval = 1 Ft

PROJECT: 1352

BY: ZGK

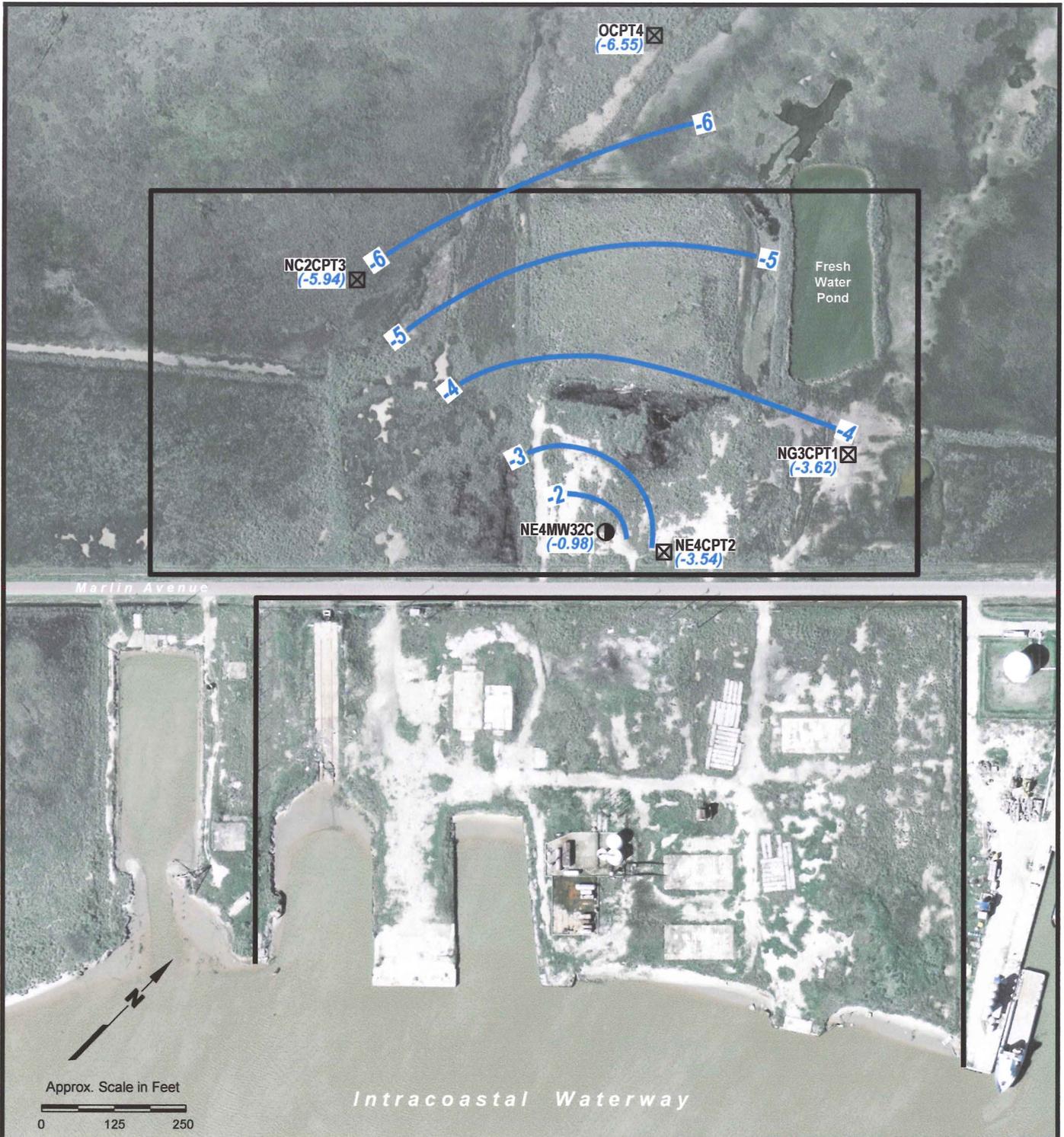
REVISIONS

DATE: FEB., 2009

CHECKED: EFP

PASTOR, BEHLING & WHEELER, LLC
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Source of photo: H-GAC, Texas aerial photograph, 2006.



**GULFCO MARINE MAINTENANCE
FREEPORT, BRAZORIA COUNTY, TEXAS**

Figure 39
**ZONE C
POTENTIOMETRIC SURFACE
JULY 30, 2008**

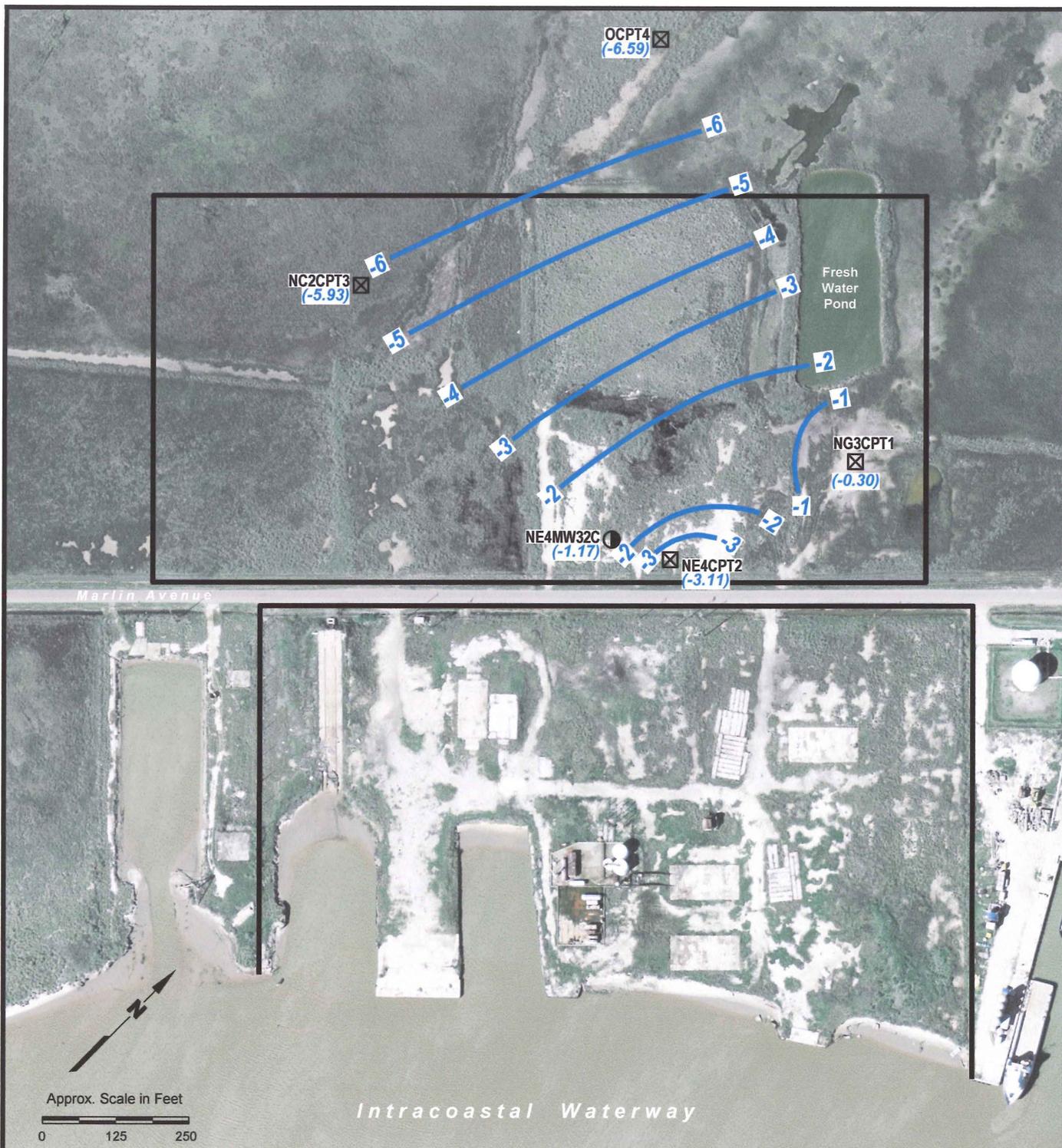
EXPLANATION

- GulfcO Marine Maintenance Site Boundary (approximate)
- Monitoring Well Location - Zone C
- CPT Piezometer Location - Zone C
- (-6.55) Water-Level Elevation (Ft AMSL) Measured 7/30/08
- 3.0 Potentiometric Surface Contour (Ft AMSL) Contour Interval = 1 Ft

PROJECT: 1352	BY: ZGK	REVISIONS
DATE: FEB., 2009	CHECKED: EFP	

PASTOR, BEHLING & WHEELER, LLC
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Source of photo: H-GAC, Texas aerial photograph, 2006.



**GULFCO MARINE MAINTENANCE
FREEPORT, BRAZORIA COUNTY, TEXAS**

Figure 40
**ZONE C
POTENTIOMETRIC SURFACE
SEPTEMBER 29, 2008**

EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- Monitoring Well Location - Zone C
- CPT Piezometer Location - Zone C
- (-3.11) Water-Level Elevation (Ft AMSL) Measured 9/29/08
- 3.0- Potentiometric Surface Contour (Ft AMSL) Contour Interval = 1 Ft

PROJECT: 1352

BY: ZGK

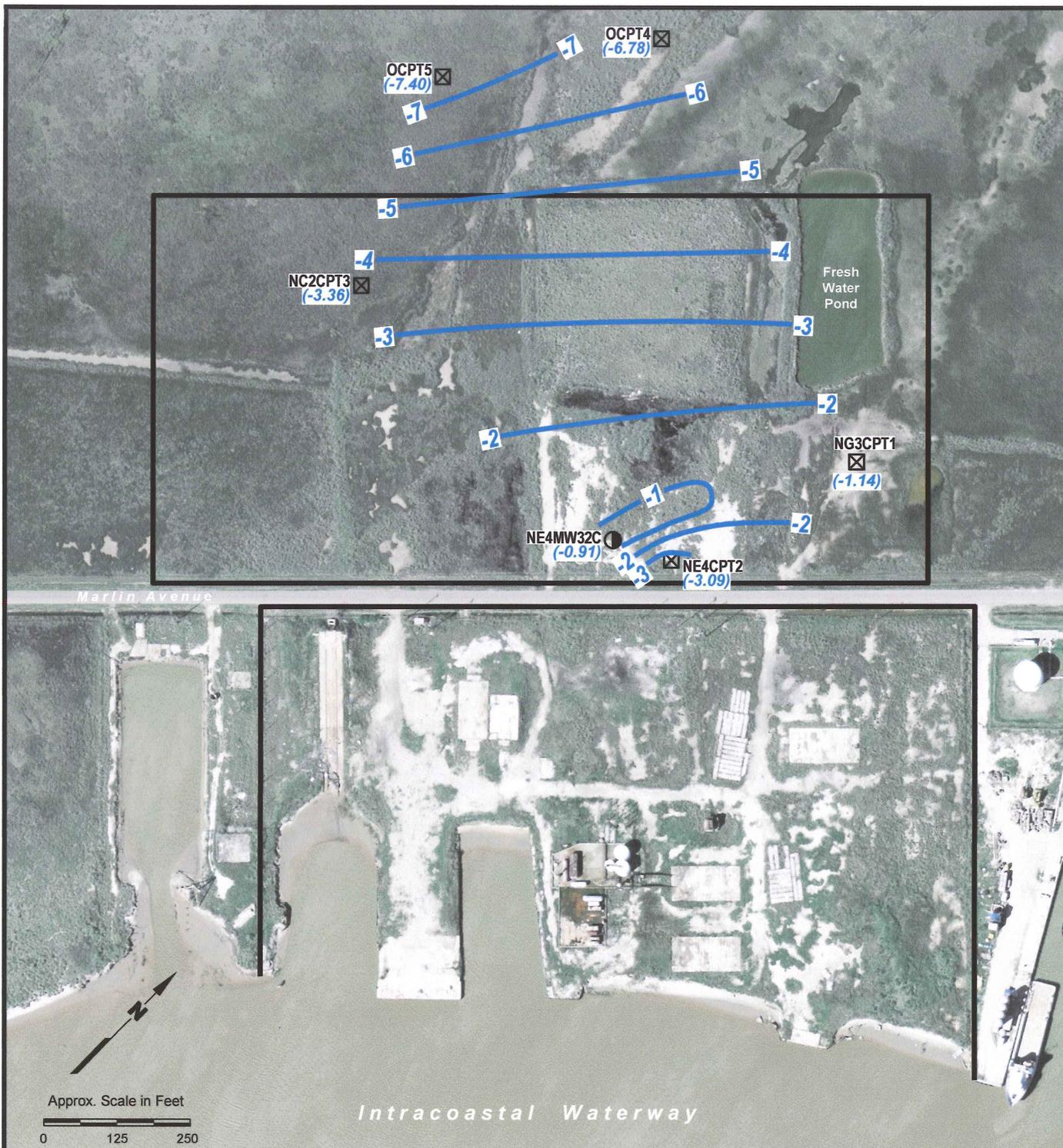
REVISIONS

DATE: FEB., 2009

CHECKED: EFP

PASTOR, BEHLING & WHEELER, LLC
CONSULTING ENGINEERS AND SCIENTISTS

Source of photo: H-GAC, Texas aerial photograph, 2006.



**GULFCO MARINE MAINTENANCE
FREEPORT, BRAZORIA COUNTY, TEXAS**

Figure 41
**ZONE C
POTENTIOMETRIC SURFACE
JANUARY 13, 2009**

- EXPLANATION**
- Gulfco Marine Maintenance Site Boundary (approximate)
 - Monitoring Well Location - Zone C
 - CPT Piezometer Location - Zone C
 - (-3.11) Water-Level Elevation (Ft AMSL) Measured 1/13/09
 - 3.0- Potentiometric Surface Contour (Ft AMSL) Contour Interval = 1 Ft

PROJECT: 1352	BY: ZGK	REVISIONS
DATE: FEB., 2009	CHECKED: EFP	

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Source of photo: H-GAC, Texas aerial photograph, 2006.

APPENDIX B

**INTRACOASTAL WATERWAY SEDIMENT BACKGROUND CONCENTRATION
TOLERANCE LIMIT CALCULATIONS**

APPENDIX B

INTRACOASTAL WATERWAY SEDIMENT BACKGROUND CONCENTRATION TOLERANCE LIMIT CALCULATIONS

Tolerance limits were calculated for background metals analytes using the procedure described in Gibbons, 1994. Relevant pages from Gibbons, 1994 describing this procedure are attached. A step-by-step discussion of these calculations is provided below.

Step 1 - Calculate the Background Mean and Standard Deviation

After confirming the data were normally distributed, these parameters were calculated for each background metal using EPA's *PRO UCL* statistical software package (EPA, 2007). These parameters are summarized in Table B-1.

Step 2- Calculate Tolerance Limit

Since the purpose of the tolerance limit is to identify metals concentrations that are higher than background a one-sided upper tolerance limit was calculated.

As provided in Gibbons, the tolerance limit is calculated from:

$$TL = \text{mean} + K * (\text{std. deviation})$$

Where K is a factor determined from statistical tables based on the number of samples in the background data set and the desired confidence and coverage goals. Consistent with Gibbons, 1994, a 95% confidence level with 95% coverage was used. Based on a background data set of 9 samples and these goals, and using Table 4.2 of Gibbons (attached), K was set at 3.032 for all background data sets. The resultant upper tolerance limits are listed in Table B-1.

TABLE B-1 - BACKGROUND SAMPLE STATISTICS - INTRACOASTAL WATERWAY SEDIMENT

Compound	Site-Specific Background Values (mg/kg)		
	Mean	Std. Dev.	Upper Tolerance Limit ⁽¹⁾
Aluminum	12,213	6,892	33,110
Antimony	4.02	2.83	12.6
Arsenic	5.81	3.11	15.2
Barium	210	48	354
Beryllium	0.766	0.403	1.99
Boron	27.6	12.8	66.5
Chromium	12.8	6.5	32.6
Cobalt	6.70	3.17	16.3
Copper	8.14	5.2	23.8
Lead	9.58	3.6	20.5
Lithium	21.4	14.4	65.1
Manganese	331	89	601
Mercury	0.018	0.013	0.0576
Molybdenum	0.24	0.07	0.446
Nickel	14.91	8.11	39.5
Strontium	59.2	22.1	126
Titanium	31.8	10.5	63.6
Vanadium	20.2	9.1	47.9
Zinc ⁽³⁾	36.04	13.68	77.5

Note:

(1) One-side upper tolerance limit for 95% confidence and 95% coverage for a background data set of 9 samples.

Attachment B-1

Excerpted Pages from Gibbons, 1994

STATISTICAL METHODS FOR GROUNDWATER MONITORING

Robert D. Gibbons

University of Illinois at Chicago



A WILEY-INTERSCIENCE PUBLICATION

JOHN WILEY & SONS, INC.

New York • Chichester • Brisbane • Toronto • Singapore

allowable, the costly verification stage would not be required. This two-stage procedure is quite similar to the prediction limit approach described by Davis and McNichols (1987).

4.2 NORMAL TOLERANCE LIMITS

Assume that we have available estimates \bar{x} and s of the mean and standard deviation based on n background observations with degrees of freedom $f = n - 1$ from a normal distribution. We require the factor K from the two-sided interval

$$\bar{x} \pm Ks \tag{4.1}$$

which leads to the statement, "At least a proportion P of the normal population is between $\bar{x} - Ks$ and $\bar{x} + Ks$ with confidence $1 - \alpha$." Wald and Wolfowitz (1946) showed that K can be approximated by

$$K \sim ru \tag{4.2}$$

where r is a function of n and P and is determined from the normal distribution

$$\frac{1}{\sqrt{2\pi}} \int_{(1/\sqrt{n})-r}^{(1/\sqrt{n})+r} \exp\left(-\frac{x^2}{2}\right) dx = P \tag{4.3}$$

and u is a function of f and α and is defined as the $(1 - \alpha)100\%$ of the chi-square distribution as

$$u = \sqrt{\frac{f}{\chi_{\alpha, f}^2}} \tag{4.4}$$

By selecting a coverage probability P , (4.3) may be solved for r (since n is known), and by selecting a confidence level P , (4.4) may be solved for u (since $f = n - 1$ is known). Two-sided values of K are provided in Table 4.1 for $n = 4$ to ∞ , 95% confidence and 95% and 99% coverage.

For one-sided tolerance limits $\bar{x} + Ks$, we require the factor K which leads to the statement, "At least a proportion P of the normal population is less than $\bar{x} + Ks$ with confidence $1 - \alpha$." Owen (1962) determines K by

$$\Pr\{(\text{noncentral } t \text{ with } \delta = z\sqrt{n}) \leq K\sqrt{n}\} = 1 - \alpha \tag{4.5}$$

where δ is the noncentrality parameter of the noncentral t -distribution with

TABLE 4.1 Factors (K) for Constructing Two-Sided Normal Tolerance Limits ($\bar{x} \pm Ks$) for 95% Confidence and 95% and 99% Coverage

n	95% Coverage	99% Coverage
4	6.370	8.299
5	5.079	6.634
6	4.414	5.775
7	4.007	5.248
8	3.732	4.891
9	3.532	4.631
10	3.379	4.433
11	3.259	4.277
12	3.169	4.150
13	3.081	4.044
14	3.012	3.955
15	2.954	3.878
16	2.903	3.812
17	2.858	3.754
18	2.819	3.702
19	2.784	3.656
20	2.752	3.615
21	2.723	3.577
22	2.697	3.543
23	2.673	3.512
24	2.651	3.483
25	2.631	3.457
30	2.549	3.350
35	2.490	3.272
40	2.445	3.212
50	2.379	3.126
60	2.333	3.066
80	2.272	2.986
100	2.233	2.934
500	2.070	2.721
∞	1.960	2.576

$f = n - 1$ degrees of freedom, and z is defined by

$$\frac{1}{\sqrt{2\pi}} \int_{-\infty}^z \exp\left(-\frac{x^2}{2}\right) dx = P \quad (4.6)$$

One-sided values of K are provided in Table 4.2 for $n = 4$ to ∞ , 95% confidence and 95% and 99% coverage.

To illustrate the differences between tolerance and prediction limits, Figure 4.1 displays power curves for a 95% confidence normal prediction

limit for the $n = 20$, and t limit and 95% Figure 4.1 r comparisons have expected limit that is 95% confidence monitor

TABLE 4.2 Factors (K) for Constructing One-Sided Normal Tolerance Limits ($\bar{x} + Ks$) for 95% Confidence and 95% and 99% Coverage

n	95% Coverage	99% Coverage
4	5.144	7.042
5	4.210	5.749
6	3.711	5.065
7	3.401	4.643
8	3.188	4.355
9	3.032	4.144
10	2.911	3.981
11	2.815	3.852
12	2.736	3.747
13	2.670	3.659
14	2.614	3.585
15	2.566	3.520
16	2.523	3.463
17	2.486	3.414
18	2.453	3.370
19	2.423	3.331
20	2.396	3.295
21	2.371	3.262
22	2.350	3.233
23	2.329	3.206
24	2.309	3.181
25	2.292	3.158
30	2.220	3.064
35	2.166	2.994
40	2.126	2.941
50	2.065	2.863
60	2.022	2.807
80	1.965	2.733
100	1.927	2.684
500	1.763	2.475
∞	1.645	2.326

limit for the next $k = 100$ measurements based on a previous sample of $n = 20$, and a corresponding 95% confidence 95% coverage normal tolerance limit and 95% confidence 99% coverage normal tolerance limit. Inspection of Figure 4.1 reveals that the probability of failing at least one of the 100 comparisons by chance alone is much greater for the tolerance limits which have expected failure rates of 1% and 5%, respectively, versus the prediction limit that is designed to include 100% of the next 100 measurements with 95% confidence. Use of these two alternative limits for groundwater detection monitoring is anything but a "matter of personal preference."

(4.6)

$n = 4$ to ∞ , 95% prediction limits, normal prediction

APPENDIX C

SOIL BACKGROUND CONCENTRATION TOLERANCE LIMIT CALCULATIONS

APPENDIX C

SOIL BACKGROUND CONCENTRATION TOLERANCE LIMIT CALCULATIONS

Tolerance limits were calculated for background metals analytes using the procedure described in Gibbons, 1994, and used for background Intracoastal Waterway sediments in Appendix B. A step-by-step discussion of these calculations is provided below.

Step 1 - Calculate the Background Mean and Standard Deviation

These parameters were calculated for each background metal using EPA's *PRO UCL* statistical software package (EPA, 2007). These parameters are summarized in Table C-1.

Step 2- Calculate Tolerance Limit

Since the purpose of the tolerance limit is to identify metals concentrations that are higher than background a one-sided upper tolerance limit was calculated.

As provided in Gibbons, the tolerance limit is calculated from:

$$TL = \text{mean} + K * (\text{std. deviation})$$

Where K is a factor determined from statistical tables based on the number of samples in the background data set and the desired confidence and coverage goals. Consistent with Gibbons, 1994, a 95% confidence level with 95% coverage was used. Based on a background data set of 10 samples and these goals, and using Table 4.2 of Gibbons (see Appendix B), K was set at 2.911 for all background data sets, except for barium and zinc. The resultant upper tolerance limits are listed in Table C-1.

In the case of barium, inspection of the background data set (see Table C-2) indicates one value (1,130 mg/kg) significantly higher than the other nine values (mean of 244 mg/kg), and likely indicative of anthropogenic sources. Although EPA, 2002 does provide for consideration of anthropogenic sources not related to the site of interest when making background comparisons, for conservative purposes and based on discussions with EPA regarding the background zinc data (see below), this anomalously high barium concentration was removed from the background data set prior to calculating the barium tolerance limit. The background barium mean and standard deviation based on the remaining nine background values are listed in Table C-1. These values along with a K factor based on nine samples were used to calculate the barium tolerance limit in Table C-1.

Similarly for zinc, two values in the background data set (Table C-3) are significantly higher than the other eight values, although none of the zinc values were identified as outliers by a statistical test (Dixon's outlier test) using *PRO UCL*. Notwithstanding these findings and per discussions with EPA regarding the spatial distribution of the zinc concentrations within the background area, the two highest zinc concentrations were removed from the background data set prior to calculating the zinc tolerance limit. The background zinc mean and standard deviation based on the remaining eight background values are listed in Table C-1. These values along with a K factor based on eight samples were used to calculate the zinc tolerance limit in Table C-1.

TABLE C-1 - BACKGROUND SAMPLE STATISTICS - SOIL

Compound	Site-Specific Background Values (mg/kg)		
	Mean	Std. Dev.	Upper Tolerance Limit ⁽¹⁾
Arsenic	3.44	1.79	8.66
Barium ⁽²⁾	244	72	462
Chromium	15.2	3.0	24.0
Copper	12.1	4.0	23.6
Lead	13.4	1.5	17.9
Lithium	21.1	5.2	36.2
Manganese	377	94	650
Mercury	0.021	0.005	0.035
Molybdenum	0.52	0.07	0.74
Zinc ⁽³⁾	76.3	64.0	280

Note:

- (1) One-side upper tolerance limit for 95% confidence and 95% coverage.
- (2) Barium parameters calculated using data set with highest concentration removed.
- (3) Zinc parameters calculated using data set with two highest concentrations removed.

TABLE C-2 - BARIUM CONCENTRATIONS IN BACKGROUND SOIL SAMPLES

Sample Location	Concentration (mg/kg)
BSS-1	322
BSS-2	361
BSS-3	237
BSS-4	281
BSS-5	150
BSS-6	1130
BSS-7	281
BSS-8	215
BSS-9	177
BSS-10	177

TABLE C-3 - ZINC CONCENTRATIONS IN BACKGROUND SOIL SAMPLES

Sample Location	Concentration (mg/kg)
BSS-1	969
BSS-2	81.2
BSS-3	77
BSS-4	40.9
BSS-5	36.6
BSS-6	890J
BSS-7	227J
BSS-8	74J
BSS-9	37.1J
BSS-10	36.8J

Note:

Data qualifier: J = estimated value.

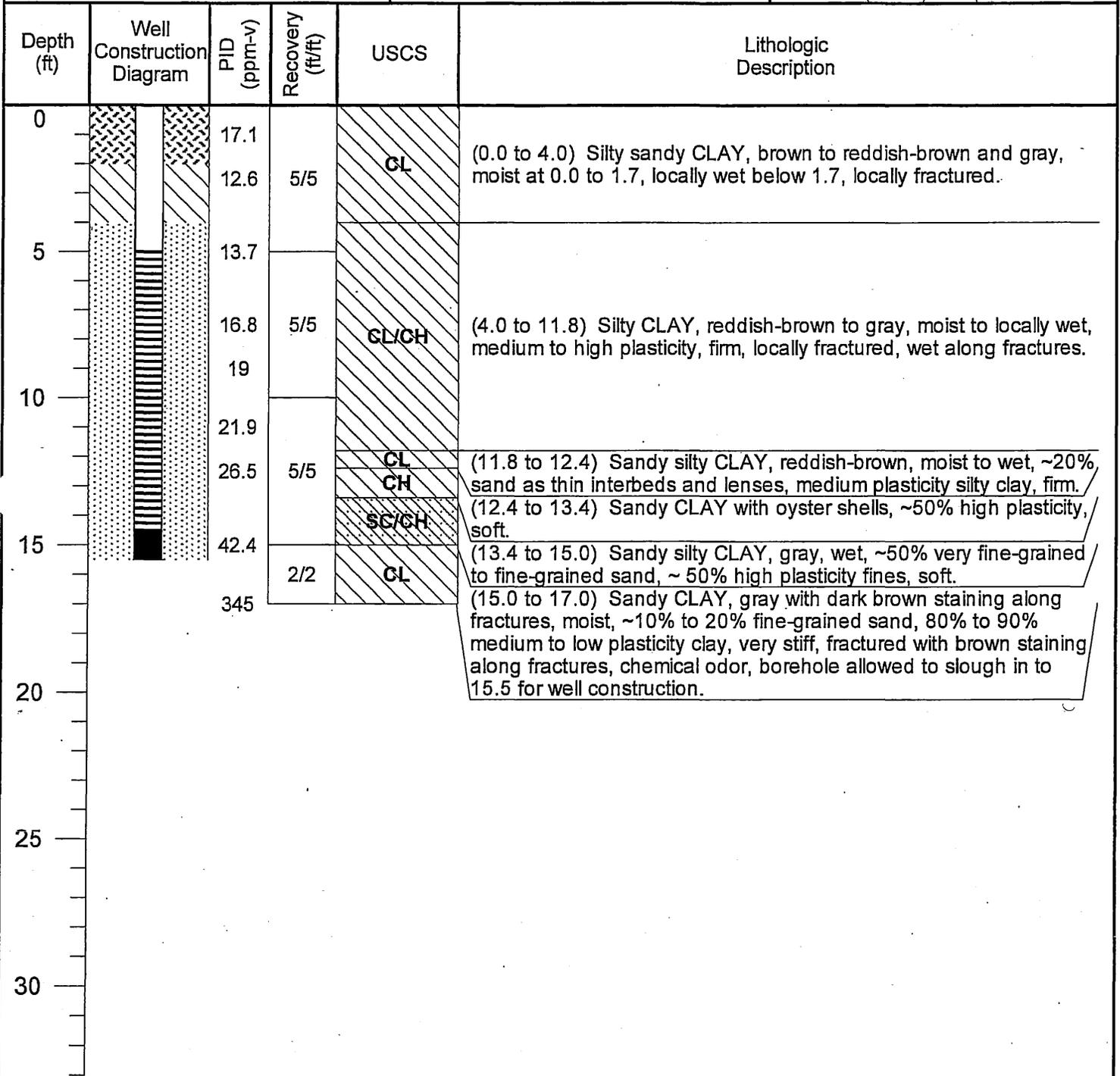
APPENDIX D
SOIL BORING LOGS

Log of Boring: ND2MW01

Gulfco Marine Maintenance
Superfund Site
Freeport, TX

Completion Date:	07/21/06	Borehole Diameter (in.):	8.25
Drilling Company:	Best Drilling Services, Inc.	Total Depth (ft):	17
Field Supervisor:	Tim Jennings, P.G.	Northing:	13554817.58
Drilling Method:	Hollow Stem Auger	Easting:	3154371.56
Sampling Method:	5 ft continuous core	Ground Elev. (ft. MSL):	1.9
		TOC Elev. (ft. MSL)	5.09

PBW Project No. 1352



Pastor, Behling & Wheeler, LLC
2201 Double Creek Dr., Suite 4004
Round Rock, TX 78664

Well Materials

(0.0 to 5.0) Casing, 2" sch. 40 PVC
(5.0 to 15.0) Screen, 2" sch. 40 PVC, 0.01 slot
(15.0 to 15.5) End Cap

Annular Materials

(0.0 to 2.0) Portland Cement with ~ 5% bentonite gel
(2.0 to 4.0) Bentonite chips, 3/8"
(4.0 to 15.5) Sand, 20/40 silica

Log of Boring: ND3MW02

Gulfco Marine Maintenance
 Superfund Site
 Freeport, TX

Completion Date:	07/17/06	Borehole Diameter (in.):	8.25
Drilling Company:	Best Drilling Services, Inc.	Total Depth (ft):	22
Field Supervisor:	Tim Jennings, P.G.	Northing:	13554692.51
Drilling Method:	Hollow Stem Auger	Easting:	3154679.33
Sampling Method:	5 ft continuous core	Ground Elev. (ft. MSL):	3.7
		TOC Elev. (ft. MSL)	6.41

PBW Project No. 1352

Depth (ft)	Well Construction Diagram	PID (ppm-v)	Recovery (ft/ft)	USCS	Lithologic Description	
0		0.5/0.5	1.5/1.5	CL	(0.0 to 0.5) Sandy CLAY, brown, moist, ~ 30% to 40% fine-grained sand, ~ 60% to 70% medium plasticity clay, firm.	
16.4		14	5/5		(0.5 to 2.0) Sandy CLAY as above, trace black mottling at 2.2, decrease in sand content below 2.0.	
5		9.5	5/5	CL/SP	(2.0 to 7.5) Sandy CLAY as above with local fractures, wet.	
6.8		6.8			(7.5 to 11.5) Sandy CLAY, brown, wet, ~ 20% to 50% fine-grained sand, ~ 50% to 80% high plasticity clay.	
10		0.7	5.4	5/5	SC/SM	(11.5 to 14.6) Clayey silty SAND, brown, wet, ~ 30% to 50% medium plasticity fines, ~ 50% to 70% very fine to fine-grained sand, very soft.
15		7.4	6.1			5/5
20		9.9	315	5/5	CH	
25		1755	1.5/1.5			
30						



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Well Materials

- (0.0 to 11.5) Casing, 2" sch. 40 PVC
- (11.5 to 21.5) Screen, 2" sch. 40 PVC, 0.01 slot
- (21.5 to 22.0) End Cap

Annular Materials

- (0.0 to 5.0) Portland Cement with ~ 5% bentonite gel
- (5.0 to 8.0) Bentonite chips, 3/8"
- (8.0 to 22.0) Sand, 20/40 silica

Log of Boring: ND4MW03

Gulfco Marine Maintenance
 Superfund Site
 Freeport, TX

Completion Date:	07/17/06	Borehole Diameter (in.):	8.25
Drilling Company:	Best Drilling Services, Inc.	Total Depth (ft):	20
Field Supervisor:	Tim Jennings, P.G.	Northing:	13554562.67
Drilling Method:	Hollow Stem Auger	Easting:	3154758.06
Sampling Method:	5 ft continuous core	Ground Elev. (ft. MSL):	3.2
		TOC Elev. (ft MSL)	6.2

PBW Project No. 1352

Depth (ft)	Well Construction Diagram	PID (ppm-v)	Recovery (ft/ft)	USCS	Lithologic Description		
0		0.9	0.5/0.5	CL	(0.0 to 0.2) Silty SAND, light brown, moist, very fine-grained sand, soft.		
			1.5/1.5		(0.2 to 0.6) Sandy CLAY, dark brown, moist, ~ 20% very fine-grained sand, ~ 80% medium plasticity clay, slightly firm.		
			1.6		5/5	(0.6 to 2.0) Sandy CLAY, dark brown, becomes black below 1.5.	
			1.9			(2.0 to 4.2) Sandy CLAY, locally black and dark reddish-brown, becomes highly plastic below ~ 3.0.	
5					5/5	(4.2 to 8.2) Sandy CLAY as above, reddish-brown, moist, wet below 5.9, with thin sand interbeds locally.	
			1.7			(8.2 to 10.4) Sandy CLAY, brown, wet, ~ 40 very fine-grained sand, ~ 60% highly plastic clay, soft.	
10			0.8			SP/SC	(10.4 to 15.6) Poorly graded SAND with clayey sand, brown, wet, ~80% fine-grained sand, ~ 20% high plasticity clay, very soft.
			2.4		5/5		
			2.1				
15			2.9			CL/SP	(15.6 to 17.0) Poorly graded SAND and sandy CLAY, brown, wet, ~50% very fine-grained sand, ~ 50% high plasticity clay, very soft.
		3.4	5/5	CH	(17.0 to 20.0) Sandy CLAY, brown to grayish brown, wet, <5% fine-grained sand, ~95% high plasticity CLAY, soft, borehole allowed to slough to 18.0 for well construction.		
20							
25							
30							

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 Round Rock, TX 78664

Well Materials

(0.0 to 7.5) Casing, 2" sch. 40 PVC
 (7.5 to 17.5) Screen, 2" sch. 40 PVC, 0.01 slot
 (17.5 to 18.0) End Cap

Annular Materials

(0.0 to 3.0) Portland Cement with ~ 5% bentonite gel
 (3.0 to 5.0) Bentonite chips, 3/8"
 (5.0 to 18.0) Sand, 20/40 silica

PASTOR, BEHLING & WHEELER, LLC
Consulting Engineers and Scientists

Log of Boring: NE1MW04

Gulfco Marine Maintenance
Superfund Site
Freeport, TX

Completion Date:	07/21/06	Borehole Diameter (in.):	8.25
Drilling Company:	Best Drilling Services, Inc.	Total Depth (ft):	17
Field Supervisor:	Tim Jennings, P.G.	Northing:	13555097.66
Drilling Method:	Hollow Stem Auger	Easting:	3154385.63
Sampling Method:	5 ft continuous core	Ground Elev. (ft. MSL):	2.1
		TOC Elev. (ft MSL)	4.9

PBW Project No. 1352

Depth (ft)	Well Construction Diagram	PID (ppm-v)	Recovery (ft/ft)	USCS	Lithologic Description
0		19		CL	(0.0 to 5.0) Sandy CLAY, dark gray to reddish-brown, moist, ~ 10% to 20% fine-grained sand, ~ 80% to 90% medium to low plasticity clay, very stiff.
28.2		5/5			(5.0 to 8.2) Sandy silty CLAY, gray to brown, wet, ~ 20% to 40% fine-grained sand and silt, 60% - 80% medium to high plasticity clay, soft.
5		20.9		SM/SC	(8.2 - 10.0) Silty clayey SAND, brown to gray, wet, ~50% high plasticity silt and clay, ~ 50% very fine-grained to fine-grained sand, firm.
		1	5/5		(10.0 to 15.0) Silty sandy CLAY, reddish-brown to gray, wet, ~ 20% to 40% silt and very fine-grained sand, ~ 60% to 80% high plasticity clay, very soft, oyster shells at 11.8 to 12.2.
10		1.1		CH	(15.0 to 16.5) Sandy CLAY with carbonate nodules, gray, wet, ~ 30% fine-grained sand, ~ 20% carbonate nodules, ~ 50% medium plasticity clay, very fractured.
		1.1	4.5/5		(16.5 to 17.0) Sandy CLAY, brown, moist, ~ 10% fine-sand, ~ 90% low to medium plasticity clay, very stiff, first confining clay.
15		0.7		CL	
20					
25					
30					

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Round Rock, TX 78664

Well Materials

(0.0 to 6.5) Casing, 2" sch. 40 PVC
(6.5 to 16.5) Screen, 2" sch. 40 PVC, 0.01 slot
(16.5 to 17.0) End Cap

Annular Materials

(0.0 to 3.0) Portland Cement with ~ 5% bentonite gel
(3.0 to 5.0) Bentonite chips, 3/8"
(5.0 to 17.0) Sand, 20/40 silica

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Log of Boring: NE3MW05

Gulfc0 Marine Maintenance
Superfund Site
Freeport, TX

Completion Date:	07/21/06	Borehole Diameter (in.):	8.25
Drilling Company:	Best Drilling Services, Inc.	Total Depth (ft):	22
Field Supervisor:	Tim Jennings, P.G.	Northing:	13554868.05
Drilling Method:	Hollow Stem Auger	Easting:	3154789.25
Sampling Method:	5 ft continuous core	Ground Elev. (ft. MSL):	3.3
		TOC Elev. (ft MSL)	6.53

PBW Project No. 1352

Depth (ft)	Well Construction Diagram	PID (ppm-v)	Recovery (ft/ft)	USCS	Lithologic Description	
0		0	4/5	SC/CL	(0.0 to 0.6) SAND and CLAY, brown, moist, ~ 50% medium plasticity clay, 50% medium-grained sand.	
		0		CL	(0.6 to 2.3) Sandy CLAY, brown, wet, ~ 30% fine to coarse-grained sand, ~ 70% medium plasticity clays, very soft.	
		0			(2.3 to 3.7) Silty sandy CLAY, gray to black, moist, ~ 10% to 20% silt and fine-grained sand, ~ 80% to 90% medium plasticity clay, firm.	
5		0.4	1/5	SM	(3.7 to 10.0) Silty SAND, brown, wet, ~ 30% to 40% fines, ~ 60% to 70% very fine to fine-grained sand, soft, black sludge-like material from groundwater in reducing environment, debris blocking core barrel causing poor recovery, large anchor rope around augers when pulled—likely reason for poor recovery.	
10		0		SM/SC	(10.0 to 15.0) Silty clayey SAND, brown, wet, ~ 40% to 50% medium to high plasticity fines, ~ 50% to 60% very fine to fine-grained sand.	
15		0	3/5	SC/CL	(15.0 to 16.5) Silty clayey SAND as above with thin interbedded CLAY locally, due to poor recovery very little clay observed, first "confining" clay interpreted at ~ 15.5 to 16.5 with the "lower sand" below ~ 16.5.	
		0		SP	(16.5 to 20.0) Poorly graded SAND with CLAY, brown, wet, very fine to fine-grained sand, very "soupy."	
20		0	2/2		(20.0 to 22.0) Poorly graded SAND, brown, wet, very fine to medium-grained sand.	
25						
30						

Notes:
1. Hydrocarbon-like sheen on water in borehole, but no visible chemical or hydrocarbon observed in core at any depth.

PBW

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Well Materials

(0.0 to 5.5) Casing, 2" sch. 40 PVC
(5.5 to 15.5) Screen, 2" sch. 40 PVC, 0.01 slot
(15.5 to 16.0) End Cap

Annular Materials

(0.0 to 2.0) Portland Cement with ~ 5% bentonite gel
(2.0 to 4.0) Bentonite chips, 3/8"
(4.0 to 16.0) Sand, 20/40 silica
(16.0 to 22.0) Bentonite chips, 3/8"

This boring log should not be used separately from the original report.

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Consulting Engineers and Scientists

Log of Boring: NF2MW06

Gulfc0 Marine Maintenance
Superfund Site
Freeport, TX

Completion Date:	07/31/06	Borehole Diameter (in.):	8.25
Drilling Company:	Best Drilling Services, Inc.	Total Depth (ft):	20
Field Supervisor:	Tim Jennings, P.G.	Northing:	13555117.77
Drilling Method:	Hollow Stem Auger	Easting:	3154650.46
Sampling Method:	5 ft continuous core	Ground Elev. (ft. MSL):	2.2
		TOC Elev. (ft MSL)	5.35

PBW Project No. 1352

Depth (ft)	Well Construction Diagram	PID (ppm-v)	Recovery (ft/ft)	USCS	Lithologic Description
0		3.4	4/4	CL	(0.0 to 0.7) Sandy CLAY, brown, moist, ~ 20% fine-grained sand, ~ 80% medium plasticity clay, firm, abundant roots.
5		3.5			(0.7 to 5.2) Silty CLAY, gray to brown, moist, medium plasticity, firm.
		3.1	4/4	CL/SM/SC	(5.2 to 9.8) Silty sandy CLAY and clayey silty SAND, gray to brown, wet, ~ 40% to 50% very fine-grained sand, ~ 50% to 60% medium plasticity clay and silt, soft to slightly firm.
		2.8			
10		2.8			
		4.1	4/4	SP/SM	(9.8 to 13.9) Poorly graded SAND and silty SAND, brown, wet, ~ 20% to 30% low plasticity fines, ~ 70% to 80% very fine to fine-grained sand.
		4.7			
15		5.6	4/4	CH	(13.9 to 14.5) Silty CLAY, brown, moist to wet, high plasticity fines, very soft.
		6.1			
		6.3	4/4	SP	(14.5 to 16.3) Silty SAND and poorly graded SAND, brown, gray below 15.6, very fine to fine-grained sand with ~ 10% to 20% silt above 15.6, moderate chemical odor where gray. (16.3 to 17.9) Sandy CLAY, reddish-brown, moist (wet on thin sand interbeds), ~ 80% to 90% high plasticity clay, soft, firm at 17.2 to 17.9. (17.9 to 20.0) Poorly graded sand, brown, wet, very fine to fine-grained sand, soft.
20					
25					
30					

PBW

Pastor, Behling & Wheeler, LLC
2201 Double Creek Dr., Suite 4004
Round Rock, TX 78664
Tel (512) 671-3434 Fax (512) 671-3446

Well Materials

(0.0 to 6.0) Casing, 2" sch. 40 PVC
(6.0 to 16.0) Screen, 2" sch. 40 PVC, 0.01 slot
(16.0 to 16.5) End Cap

Annular Materials

(0.0 to 3.0) Portland Cement with ~ 5% bentonite gel
(3.0 to 5.0) Bentonite chips, 3/8"
(5.0 to 16.5.0) Sand, 20/40 silica

This boring log should not be used separately from the original report.

Log of Boring: SB4MW07

Gulfco Marine Maintenance
Superfund Site
Freeport, TX

Completion Date:	07/20/06	Borehole Diameter (in.):	8.25
Drilling Company:	Best Drilling Services, Inc.	Total Depth (ft):	20
Field Supervisor:	Tim Jennings, P.G.	Northing:	13554065.21
Drilling Method:	Hollow Stem Auger	Easting:	3154818.19
Sampling Method:	5 ft continuous core	Ground Elev. (ft. MSL):	4.6
		TOC Elev. (ft MSL)	7.57

PBW Project No. 1352

Depth (ft)	Well Construction Diagram	PID (ppm-v)	Recovery (ft/ft)	USCS	Lithologic Description
0		1.3	4/5	Fill	(0.0 to 4.0) FILL, sand, gravel, and clay, black-stained sand and gravel at 3.0 to 4.0 with moderate hydrocarbon odor.
		153			
5		11.6	5/5	CL	(5.0 to 11.0) CLAY, reddish-brown to gray, moist, medium plasticity, becomes silty clay below ~ 10.0.
		7.9			
		5.9			
10		5.2	5/5	CH	(11.0 to 18.9) Silty sandy CLAY, gray to brown, wet, ~ 10 to 20 % fine-grained sand, ~ 80% to 90% high plasticity clay, soft.
		6.1			
15		8.1			
		8.1			
		1.8	5/5	CL	(18.9 to 20.0) Silty CLAY, gray, moist, low to medium plasticity clay and silt, very stiff, first confining layer.
20	2				

PBW

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Round Rock, TX 78664

Well Materials

(0.0 to 9.5) Casing, 2" sch. 40 PVC
(9.5 to 19.5) Screen, 2" sch. 40 PVC, 0.01 slot
(19.5 to 20.0) End Cap

Annular Materials

(0.0 to 6.0) Portland Cement with ~ 5% bentonite gel
(6.0 to 8.0) Bentonite chips, 3/8"
(8.0 to 20.0) Sand, 20/40 silica

Gulfco Marine Maintenance
Superfund Site
Freeport, TX

Completion Date:	07/19/06	Borehole Diameter (in.):	8.25
Drilling Company:	Best Drilling Services, Inc.	Total Depth (ft):	20
Field Supervisor:	Tim Jennings, P.G.	Northing:	13554391.06
Drilling Method:	Hollow Stem Auger	Easting:	3154820.14
Sampling Method:	5 ft continuous core	Ground Elev. (ft. MSL):	4.4
		TOC Elev. (ft. MSL)	7.54

PBW Project No. 1352

Depth (ft)	Well Construction Diagram	PID (ppm-v)	Recovery (ft/ft)	USCS	Lithologic Description
0		5		Fill	(0.0 to 0.8) FILL, sand, gravel, and clay, hard.
3.4		3.4	5/5	CL	(0.8 to 8.4) Sandy CLAY, brown to reddish-brown, moist, ~ 20% fine-grained sand and carbonate nodules, ~ 80% medium plasticity clay, firm to stiff, possible fill at 0.8 to 4.0.
0.3		0.3			
5		3.3	5/5		
10		2.7		SM/SP	(8.4 to 11.7) Silty clayey SAND, brown to gray, moist, wet below ~ 9.0, ~ 50% high plasticity fines, ~ 50% very fine to fine-grained sand, soft.
15		2.3	5/5	SM	(11.7 to 16.6) Silty SAND, brown, wet, ~20% to 30% fines, ~ 70% to 80% very fine to fine-grained sand, soft.
		1.3			
		3			
		3.5	5/5	SM/SP	(16.6 to 18.6) Silty Clayey SAND, brown, wet, ~ 50% high plasticity fines, ~ 50% fine-grained sand, soft.
20		1.9		CH	(18.6 to 20.0) Silty CLAY, brown to dark grayish-brown, moist, high plasticity fines, firm, first confining clay.

PBW

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Well Materials

(0.0 to 8.5) Casing, 2" sch. 40 PVC
(8.5 to 18.5) Screen, 2" sch. 40 PVC, 0.01 slot
(18.5 to 19.0) End Cap

Annular Materials

(0.0 to 4.0) Portland Cement with ~ 5% bentonite gel
(4.0 to 6.5) Bentonite chips, 3/8"
(6.5 to 20.0) Sand, 20/40 silica

PASTOR, BEHLING & WHEELER, LLC Consulting Engineers and Scientists		Log of Boring: SE6MW09			
Gulfco Marine Maintenance Superfund Site Freeport, TX		Completion Date:	07/20/06	Borehole Diameter (in.):	8.25
		Drilling Company:	Best Drilling Services, Inc.	Total Depth (ft):	20
PBW Project No. 1352		Field Supervisor:	Tim Jennings, P.G.	Northing:	13554149.98
		Drilling Method:	Hollow Stem Auger	Easting:	3155180.49
		Sampling Method:	5 ft continuous core	Ground Elev. (ft. MSL):	4.7
				TOC Elev. (ft MSL)	7.66

Depth (ft)	Well Construction Diagram	PID (ppm-v)	Recovery (ft/ft)	USCS	Lithologic Description
0		2.8	3.5/5	Fill	(0.0 to 2.4) FILL, sand, gravel, and clay, brown, moist to dry, very hard, abundant roots.
5		20.1		SP	(2.4 to 5.2) Poorly graded SAND, dark brown, moist, trace black staining at 2.4 to 2.6, fine-grained sand, soft.
		6.3	5/5	CL	(5.2 to 9.5) Silty CLAY, brown, moist, medium plasticity fines, stiff, increased moisture and softer below 8.0.
		1.5			
		1.7	5/5	SM/SC	(9.5 to 13.0) Silty clayey SAND, brown, wet, ~ 40 to 50% high plasticity fines, ~ 50% to 60% very fine to fine-grained sand, soft.
10		1.9			
		1.8			
		1.8	5/5	SM	(13.0 to 17.9) Silty SAND, poorly graded sand, interbedded, brown, wet, ~ 20% to 40% high plasticity fines, ~ 60% to 80% very fine to fine-grained sand, very soft.
15		1.8			
		2.2			
	2.2	5/5	SM/SC	(17.9 to 19.4) Silty clayey SAND, brown, wet, ~ 50% high plasticity fines, ~ 50% very fine to fine-grained sand and sand interbeds, soft.	
20	1.5		CL	(19.4 to 20.0) Silty CLAY, grayish-brown, moist, high plasticity fines, very firm.	

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Well Materials	Annular Materials
(0.0 to 9.5) Casing, 2" sch. 40 PVC	(0.0 to 6.0) Portland Cement with ~ 5% bentonite gel
(9.5 to 19.5) Screen, 2" sch. 40 PVC, 0.01 slot	(6.0 to 7.9) Bentonite chips, 3/8"
(19.5 to 20.0) End Cap	(7.9 to 20.0) Sand, 20/40 silica

This boring log should not be used separately from the original report

Log of Boring: SF5MW10

Gulfco Marine Maintenance
Superfund Site
Freeport, TX

Completion Date:	07/20/06	Borehole Diameter (in.):	8.25
Drilling Company:	Best Drilling Services, Inc.	Total Depth (ft):	20
Field Supervisor:	Tim Jennings, P.G.	Northing:	13554284.4
Drilling Method:	Hollow Stem Auger	Easting:	3155154.1
Sampling Method:	5 ft continuous core	Ground Elev. (ft. MSL):	5
		TOC Elev. (ft MSL)	8.01

PBW Project No. 1352

Depth (ft)	Well Construction Diagram	PID (ppm-v)	Recovery (ft/ft)	USCS	Lithologic Description
0		1.5	4/5	SM/SC	(0.0 to 1.3) Silty clayey SAND, brown, moist, ~ 50% low plasticity fines, ~ 50% fine-grained sand, firm, abundant roots.
		2.4		CL	(1.3 to 2.5) Silty CLAY, brown to gray, moist, low plasticity fines, stiff.
		5.0		SM	(2.5 to 5.0) Silty SAND, brown to black, moist, ~ 40% low plasticity fines, ~ 60% fine-grained sand, black staining has slight hydrocarbon odor.
5		1.5	5/5	CL	(5.0 to 8.6) Silty sandy CLAY, reddish brown, moist, ~ 10% to 20% fine-grained sand and silt, ~ 80% to 90% medium plasticity clay, firm, stiff.
		1.7		CL	
		1.7		SM/SC	(8.6 to 10.5) Silty clayey SAND, brown, moist, ~ 50% high plasticity fines, ~ 50% very fine-grained sand, very soft.
10		1.7	5/5	SM/SH/CL	(10.5 to 15.0) Interbedded silty SAND, sandy SILT, and silty clayey SAND, brown, wet, ~40% to 60% high plasticity fines as interbeds, ~ 40 to 60% very fine-grained sand, soft.
		1.5		SM/SH/CL	
		1.4		SM	(15.0 to 18.2) Silty SAND, brown, wet, ~ 40% medium plasticity silt, ~60% very fine to fine-grained sand, soft.
15		1.4	5/5	SM	
	1.4	CH		(18.2 to 20.0) Silty CLAY, grayish-brown, moist, high plasticity fines, soft, first confining clay.	
20	1.5				
25					
30					

PBW

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Well Materials

(0.0 to 9.0) Casing, 2" sch. 40 PVC
(9.0 to 19.0) Screen, 2" sch. 40 PVC, 0.01 slot
(19.0 to 19.5) End Cap

Annular Materials

(0.0 to 5.0) Portland Cement with ~ 5% bentonite gel
(5.0 to 7.0) Bentonite chips, 3/8"
(7.0 to 20.0) Sand, 20/40 silica

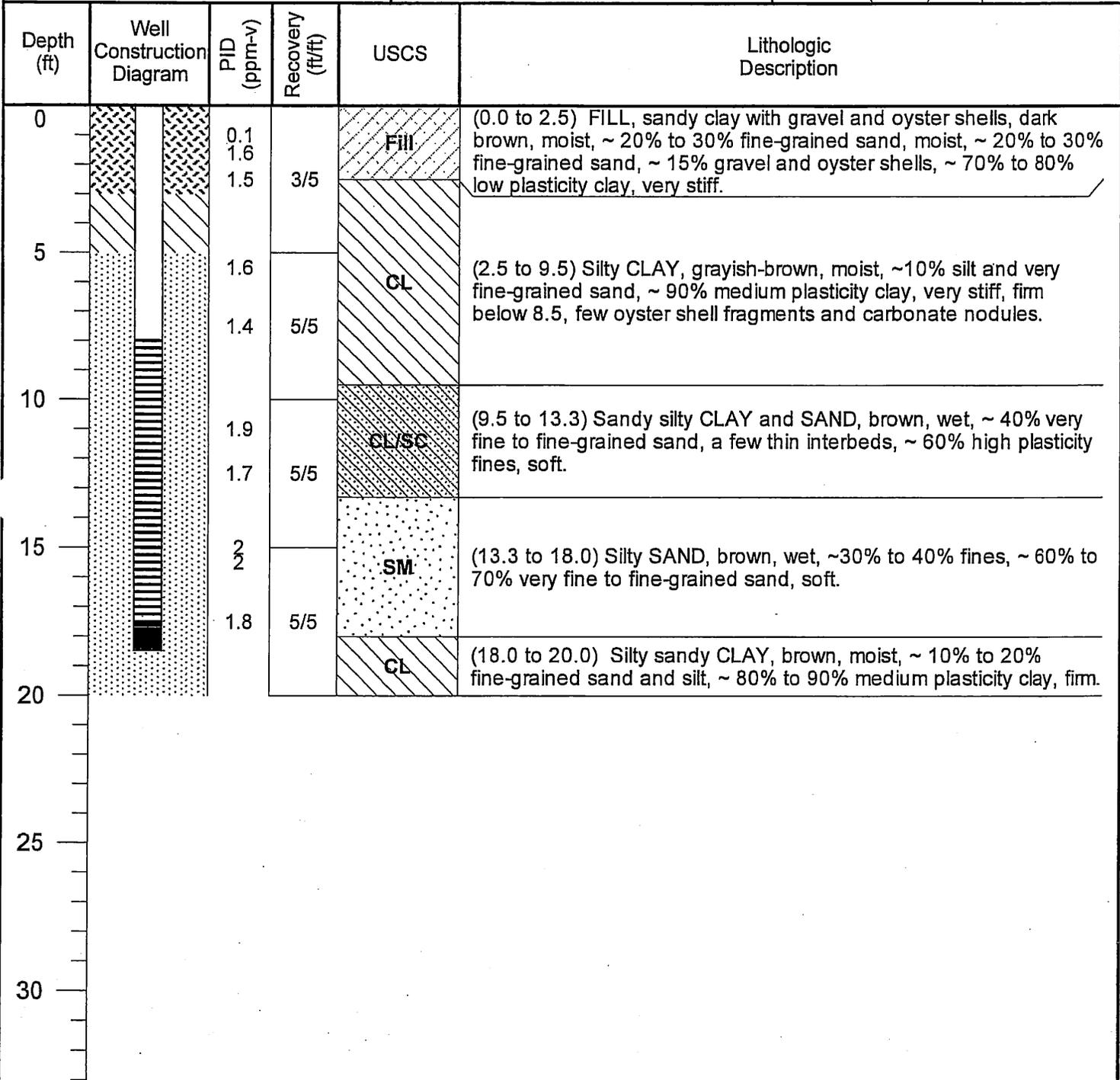
This boring log should not be used separately from the original report.

Log of Boring: SF6MW11

Gulfco Marine Maintenance
 Superfund Site
 Freeport, TX

Completion Date:	07/20/06	Borehole Diameter (in.):	8.25
Drilling Company:	Best Drilling Services, Inc.	Total Depth (ft):	20
Field Supervisor:	Tim Jennings, P.G.	Northing:	13554215.04
Drilling Method:	Hollow Stem Auger	Easting:	3155265.88
Sampling Method:	5 ft continuous core	Ground Elev. (ft. MSL):	5
		TOC Elev. (ft MSL)	8.11

PBW Project No. 1352



PBW

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Well Materials

(0.0 to 8.0) Casing, 2" sch. 40 PVC
 (8.0 to 18.0) Screen, 2" sch. 40 PVC, 0.01 slot
 (18.0 to 18.5) End Cap

Annular Materials

(0.0 to 3.0) Portland Cement with ~ 5% bentonite gel
 (.0 to 5.0) Bentonite chips, 3/8"
 (5.0 to 20.0) Sand, 20/40 silica

Log of Boring: SF7MW12

Gulfc0 Marine Maintenance
 Superfund Site
 Freeport, TX

Completion Date:	07/20/06	Borehole Diameter (in.):	8.25
Drilling Company:	Best Drilling Services, Inc.	Total Depth (ft):	20
Field Supervisor:	Tim Jennings, P.G.	Northing:	13554105.36
Drilling Method:	Hollow Stem Auger	Easting:	3155304.07
Sampling Method:	5 ft continuous core	Ground Elev. (ft. MSL):	4.7
		TOC Elev. (ft MSL)	7.96

PBW Project No. 1352

Depth (ft)	Well Construction Diagram	PID (ppm-v)	Recovery (ft/ft)	USCS	Lithologic Description
0		1.5		Fill	(0.0 to 1.0) FILL, poorly graded SAND, brown, moist, very fine to fine-grained sand.
		21.4	4/5		(1.0 to 5.0) FILL, sand, clay, gravel and shells, stiff, dark brown to black with moderate chemical odor locally near 2.0 to 3.0.
5		1.8		CL	(5.0 to 10.0) Silty sandy CLAY, dark brown to gray, moist, ~5% to 10% very fine-grained sand and silt, ~ 90% to 95% medium plasticity clay, stiff.
		2.6	2.5/5		
10		1.9		SM/SC	(10.0 to 14.5) Silty SAND and clayey SAND, grayish-brown and brown, wet, ~ 30% high plasticity clay as clayey sand interbeds, ~ 20% low plasticity silt, ~ 50% very fine to fine-grained sand, soft.
		1.6	5/5		
15		1.9		SP	(14.5 to 18.0) Poorly graded SAND with silt, brown, wet, < 10% low plasticity fines, > 90% very fine to fine-grained sand, very soft.
		1.7	5/5		
20		1.8		SP/SM/SC	(18.0 to 19.0) Interbedded, poorly graded SAND and silty clayey SAND, brown, wet, ~ 50% low plasticity fines, ~ 50% very fine to fine-grained sand, soft.
				CL	(19.0 to 20.0) Silty CLAY, grayish-brown, moist, high plasticity fines, very firm, first confining clay.

PBW

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Well Materials

(0.0 to 8.5) Casing, 2" sch. 40 PVC
 (8.5 to 18.5) Screen, 2" sch. 40 PVC, 0.01 slot
 (18.5 to 19.0) End Cap

Annular Materials

(0.0 to 5.0) Portland Cement with ~ 5% bentonite gel
 (5.0 to 7.0) Bentonite chips, 3/8"
 (7.0 to 20.0) Sand, 20/40 silica

This boring log should not be used separately from the original report

Log of Boring: SG2MW13

Gulfco Marine Maintenance
Superfund Site
Freeport, TX

Completion Date:	07/19/06	Borehole Diameter (in.):	8.25
Drilling Company:	Best Drilling Services, Inc.	Total Depth (ft):	22
Field Supervisor:	Tim Jennings, P.G.	Northing:	13554472.65
Drilling Method:	Hollow Stem Auger	Easting:	3155012.01
Sampling Method:	5 ft continuous core	Ground Elev. (ft. MSL):	4.5
		TOC Elev. (ft. MSL)	7.71

PBW Project No. 1352

Depth (ft)	Well Construction Diagram	PID (ppm-v)	Recovery (ft/ft)	USCS	Lithologic Description
0		1.4		Fill	(0.0 TO 2.1) FILL, sand, gravel, and clay, firm, soft.
		11.1	3.5/5	SP	(2.1 to 3.0) FILL, sand, brown, moist.
5		3.4		CL/CH	(3.0 to 11.2) Sandy silty CLAY, reddish-brown to gray, moist, ~ 20% to 30% fine-grained sand and silt, ~ 70% to 80% medium to high plasticity clay, firm.
		4.6	5/5		
10		4			
		5.8		SP/SI/CL	(11.2 to 16.0) Interbedded SAND, silty SAND, and sandy CLAY, brown, wet, ~ 50% to 60% poorly graded fine-grained sand interbeds (0.5 inches thick), locally very silty, ~ 40% to 50% high plasticity clay as interbeds.
15		4.9	5/5		
		5.3		CH	(16.0 to 18.2) CLAY, reddish-brown to brown, moist, high plasticity clay, first confining clay.
		5.3			
		3.2		CH/SP/SC	(18.2 to 20.0) CLAY as above, with ~ 45% shell-derived sand (ground oyster shells) interbeds, brown, wet.
	4.4	5/5			
20		5.2	2/2	SP	(20.0 to 22.0) Shell-derived SAND, brown, fine to coarse-grained, wet.

PBW

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Round Rock, TX 78664

Well Materials

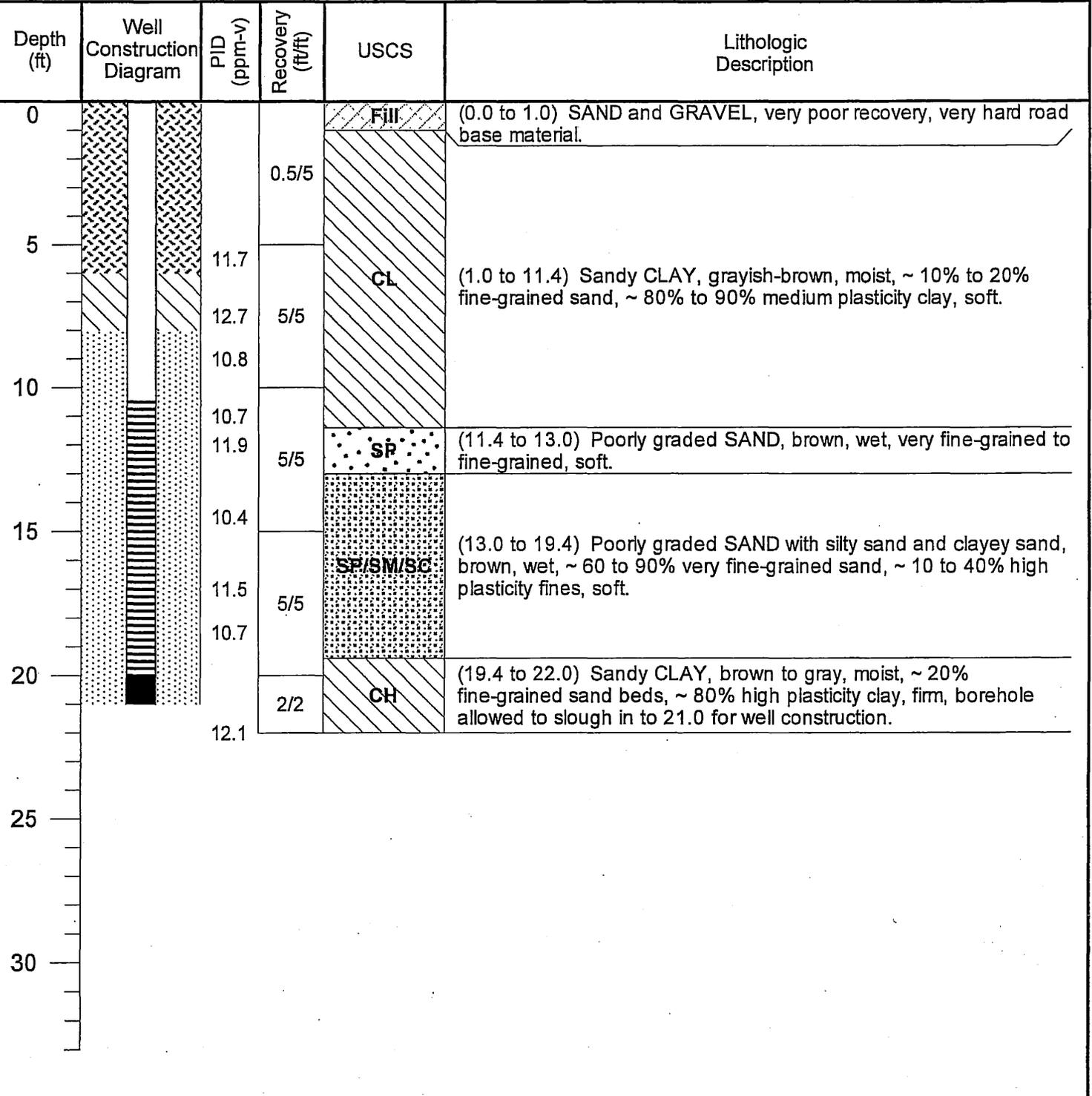
(0.0 to 6.0) Casing, 2" sch. 40 PVC
(6.0 to 16.0) Screen, 2" sch. 40 PVC, 0.01 slot
(16.0 to 16.5) End Cap

Annular Materials

(0.0 to 3.0) Portland Cement with ~ 5% bentonite gel
(3.0 to 5.0) Bentonite chips, 3/8"
(5.0 to 17.0) Sand, 20/40 silica
(17.0 to 20.0) Bentonite chips, 3/8"

PASTOR, BEHLING & WHEELER, LLC Consulting Engineers and Scientists	<h2 style="margin: 0;">Log of Boring: SH7MW14</h2>
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Gulfco Marine Maintenance Superfund Site Freeport, TX	Completion Date: 07/19/06	Borehole Diameter (in.): 8.25
	Drilling Company: Best Drilling Services, Inc.	Total Depth (ft): 22
PBW Project No. 1352	Field Supervisor: Tim Jennings, P.G.	Northing: 13554264.46
	Drilling Method: Hollow Stem Auger	Easting: 3155446.95
	Sampling Method: 5 ft continuous core	Ground Elev. (ft. MSL): 5.2
		TOC Elev. (ft MSL) 8.1



<h1 style="margin: 0;">PBW</h1> <p style="margin: 0;">Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664</p>	<p>Well Materials</p> <p>(0.0 to 10.0) Casing, 2" sch. 40 PVC</p> <p>(10.0 to 20.0) Screen, 2" sch. 40 PVC, 0.01 slot</p> <p>(20.5 to 21.0) End Cap</p>	<p>Annular Materials</p> <p>(0.0 to 6.0) Portland Cement with ~ 5% bentonite gel</p> <p>(6.0 to 8.0) Bentonite chips, 3/8"</p> <p>(8.0 to 21.0) Sand, 20/40 silica</p>
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Log of Boring: SJ1MW15

Gulfco Marine Maintenance
 Superfund Site
 Freeport, TX

Completion Date:	07/19/06	Borehole Diameter (in.):	8.25
Drilling Company:	Best Drilling Services, Inc.	Total Depth (ft):	25
Field Supervisor:	Tim Jennings, P.G.	Northing:	13554764.11
Drilling Method:	Hollow Stem Auger	Easting:	3155165.2
Sampling Method:	5 ft continuous core	Ground Elev. (ft. MSL):	2.5
		TOC Elev. (ft MSL)	5.61

PBW Project No. 1352

Depth (ft)	Well Construction Diagram	PID (ppm-v)	Recovery (ft/ft)	USCS	Lithologic Description
0		3.4		CL	(0.0 to 1.0) Sandy CLAY, brown, moist, ~ 40% fine to medium-grained sand, ~ 60% low plasticity clay, soft.
		3.9	3/5		
5			5.9	SP/SM	(1.0 to 7.5) Sandy CLAY, reddish-brown to gray, moist, ~ 10% fine-grained sand and silt, ~ 90% medium plasticity clay.
		7.3	4/5		
		6.9			
10		5.9			
		5.5	4.5/5	CH	(7.5 to 20.0) Silty Clayey SAND, brown, moist to wet below 10.0, ~ 20% to 40% high plasticity fines as interbeds, ~ 60% to 80% very fine to fine-grained sand with poorly graded sand interbeds at 11.5 to 12.5 and 13.2 to 15.0, soft.
15		7.3			
		8.4	5/5		
		7.5		SP	(20.0 to 23.7) Silty CLAY, gray, moist, high plasticity, firm, first confining clay.
20	5.9				
	9.2	5/5			
25	10.8			(23.7 to 25.0) Poorly graded SAND, brown, wet, very fine to fine-grained sand, soft, borehole allowed to slough in to 24.0 for well construction.	

PBW

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Well Materials

(0.0 to 10.0) Casing, 2" sch. 40 PVC
 (10.0 to 20.0) Screen, 2" sch. 40 PVC, 0.01 slot
 (20.5 to 20.5) End Cap

Annular Materials

(0.0 to 5.5) Portland Cement with ~ 5% bentonite gel
 (5.5 to 7.5) Bentonite chips, 3/8"
 (7.5 to 21.0) Sand, 20/40 silica
 (21.0 to 24.0) Bentonite chips, 3/8"

PASTOR, BEHLING & WHEELER, LLC Consulting Engineers and Scientists	<h1 style="margin: 0;">Log of Boring: SJ7MW16</h1>
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Gulfco Marine Maintenance Superfund Site Freeport, TX PBW Project No. 1352	Completion Date: 07/18/06	Borehole Diameter (in.): 8.25	
	Drilling Company: Best Drilling Services, Inc.	Total Depth (ft): 25	
	Field Supervisor: Tim Jennings, P.G.	Northing: 13554383.75	
	Drilling Method: Hollow Stem Auger	Easting: 3155635.14	
	Sampling Method: 5 ft continuous core	Ground Elev. (ft. MSL): 4.7	TOC Elev. (ft MSL) 7.19

Depth (ft)	Well Construction Diagram	PID (ppm-v)	Recovery (ft/ft)	USCS	Lithologic Description
0		0	5/5	FI	(0.0 to 2.0) FILL, crushed shell.
5		0	5/5	FI	(2.0 to 3.4) FILL, sandy gravelly clay with brick fragments, abundant roots, moist.
10		0.3	5/5	CL	(3.4 to 10.2) Sandy CLAY and CLAY, brown, mottled dark reddish-brown and gray, moist, ~ 10% to 20% fine to medium-grained sand, ~ 80% to 90% medium to high plasticity clay, very firm, interbedded poorly graded sand at 4.6 to 5.0.
15		0.2	5/5	CL	
20		0.2	5/5	SM	(10.2 to 11.4) Silty SAND, brown, wet, ~ 30% to 40% fines, ~ 60% to 70% fine-grained sand.
25		0.1	5/5	SP	(11.4 to 17.0) Poorly graded SAND, brown, wet, fine-grained, soft.
30		0.1	5/5	SC	(17.0 to 18.5) Clayey SAND, brown, wet, ~ 50% high plasticity clay, ~ 50% fine-grained sand, very soft.
35		0.4	5/5	SP	(18.5 to 21.9) Poorly graded SAND, brown, wet, very fine-grained, thin (< 0.2 inches) sandy clay interbeds locally, very soft.
40		1.9	5/5	CH	(21.9 to 25.0) Sandy CLAY, dark grayish-brown, moist, ~ 20% fine-grained sand, ~ 80% high plasticity clay, few interbedded sands at 21.9 to 22.5, soft, borehole allowed to slough in to 23.0 for well construction.
45		1.5	5/5	CH	
50	2.3	5/5	CH		

<h2 style="margin: 0;">PBW</h2> <p style="margin: 0;">Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664</p>	<p>Well Materials</p> <ul style="list-style-type: none"> (0.0 to 12.5) Casing, 2" sch. 40 PVC (12.5 to 22.5) Screen, 2" sch. 40 PVC, 0.01 slot (22.5 to 23.0) End Cap 	<p>Annular Materials</p> <ul style="list-style-type: none"> (0.0 to 7.0) Portland Cement with ~ 5% bentonite gel (7.0 to 9.0) Bentonite chips, 3/8" (9.0 to 23.0) Sand, 20/40 silica
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Log of Boring: SL8MW17

Gulfc0 Marine Maintenance
 Superfund Site
 Freeport, TX

Completion Date:	07/18/06	Borehole Diameter (in.):	8.25
Drilling Company:	Best Drilling Services, Inc.	Total Depth (ft):	33
Field Supervisor:	Tim Jennings, P.G.	Northing:	13554520.95
Drilling Method:	Hollow Stem Auger	Easting:	3155809.04
Sampling Method:	5 ft continuous core	Ground Elev. (ft. MSL):	2.9
		TOC Elev. (ft MSL)	5.87

PBW Project No. 1352

Depth (ft)	Well Construction Diagram	PID (ppm-v)	Recovery (ft/ft)	USCS	Lithologic Description
0		0	4/5	CL	(0.0 to 0.5) Sandy CLAY, brown, moist, ~ 30% fine-grained sand, ~70% medium plasticity CLAY, < 5% oyster shell fragments, soft.
6.8		SP		(0.5 to 2.5) SAND and clayey SAND, brown, moist, ~ 30% to 40% medium to high plasticity clay, ~ 60% to 70% very fine to fine-grained sand, < 5% oyster shell fragments, soft.	
5		0	3.25/5	CL	(2.5 to 4.0) Poorly graded SAND, brown, moist, very fine-grained, soft.
8.7	CH	(4.0 to 5.0) Sandy CLAY, brown, moist, ~ 30% fine-grained sand, ~70% clay.			
10		5.6	3.5/5	SP/SM	(5.0 to 11.3) Sandy CLAY, brown, moist, ~ 30%, fine-grained sand, ~70% high plasticity clay, ~ 10% thin sand interbeds.
7.2		7.2			
15		2.3	2/5	SP	(15.0-30.0) SAND as above with decreasing silt content below 15.0.
20		42.8			
25		36.4	3.5/5	SP	
38.2		40.1			
30		50	3/3	CL	(30.0 to 33.0) Sandy CLAY, mottled gray and brown, moist, ~ 10% to 20% fine-grained sand, ~ 80% to 90% medium plasticity clay, very firm, abundant carbonate nodules.
52.6		52.6			



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Well Materials

- (0.0 to 15.0) Casing, 2" sch. 40 PVC
- (15.0 to 25.0) Screen, 2" sch. 40 PVC, 0.01 slot
- (25.0 to 25.3) End Cap

Annular Materials

- (0.0 to 9.0) Portland Cement with ~ 5% bentonite gel
- (9.0 to 11.0) Bentonite chips, 3/8"
- (11.0 to 25.3) Sand, 20/40 silica

PASTOR, BEHLING & WHEELER, LLC Consulting Engineers and Scientists		Log of Boring: NB4MW18			
Gulfco Marine Maintenance Superfund Site Freeport, TX		Completion Date:	05/30/07	Borehole Diameter (in.):	8.25
		Drilling Company:	Master Monitoring Services, Inc.	Total Depth (ft):	19
PBW Project No. 1352		Field Supervisor:	Len Mason, PG	Northing:	13554255.42
		Drilling Method:	Hollow Stem Auger	Easting:	3154474.18
		Sampling Method:	5 ft. split spoon	Ground Elev. (ft. MSL):	2.5
				TOC Elev. (ft MSL)	4.96

Depth (ft)	Well Construction Diagram	PID (ppm-v)	Recovery (ft/ft)	USCS	Lithologic Description	
0		0.0		SC/SM	(0.0 to 0.4) Clayey silty SAND, brown, slightly moist, very fine-grained quartz, crumbly, some vegetation throughout.	
2		0.4	4/5	CH		
4		0.2	5/5			
6		0.3				
8		0.2				
10		0.4				
12		0.5	5/5	ML	(12.2 to 17.9) Slightly sandy clayey SILT, mostly gray with some reddish-brown, saturated, ~20% clay, ~ 5-10% very fine-grained sand, soft, thin shell fragment layer at 12.3 feet.	
14		0.5	2/2			
16		0.5	2/2	CH	(17.9 to 20.0) Silty CLAY, gray with some olive-gray, slightly mottled, slightly moist, high plasticity, firm.	
18						
20						
22						
24						
26						
28						
30						

PBW

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Well Materials

(0.0 to 7.5) Casing, 2" sch. 40 PVC
(7.5 to 17.5) Screen, 2" sch. 40 PVC, 0.01 slot
(17.5 to 18.0) End Cap

Annular Materials

(0.0 to 4.0) Portland Cement with 5% bentonite gel
(4.0 to 6.0) Bentonite chips, 3/8"
(6.0 to 18.0) Sand, 20/40 silica
(18.0 to 20.0) Coated bentonite pellets

PASTOR, BEHLING & WHEELER, LLC
 Consulting Engineers and Scientists

Log of Boring: NG3MW19

Gulfco Marine Maintenance
 Superfund Site
 Freeport, TX

Completion Date:	05/23/07	Borehole Diameter (in.):	8.25
Drilling Company:	Master Monitoring Services, Inc.	Total Depth (ft):	17
Field Supervisor:	Tim Jennings, PG	Northing:	13555039.92
Drilling Method:	Hollow Stem Auger	Easting:	3154974.73
Sampling Method:	5 ft. split spoon	Ground Elev. (ft. MSL):	2.2
		TOC Elev. (ft MSL)	5.08

PBW Project No. 1352

Depth (ft)	Well Construction Diagram	PI/D (ppm-v)	Recovery (ft/ft)	USCS	Lithologic Description
0		0.1	4/5	SP	(0.0 to 0.4) Clayey SAND, brown, moist, ~ 20% low plasticity fines, 80% fine to medium-grained sand, soft.
2		0.0		CL	(0.4 to 7.5) Sandy CLAY, gray 0.4 - 1.4 feet becoming reddish brown with gray mottling below, moist, ~ 10-20% very fine to fine-grained sand, ~ 80-90% medium plasticity clays, firm to soft, few oxidized iron nodules, becomes saturated below 4 feet.
4		0.4			
6					
8		0/5	SP	(7.5 to 12.0) Silty clayey SAND, brown, wet, ~ 20-50% low plasticity fines, ~ 70-80% very fine to fine-grained sand, very soft, increasing clay content below 11 feet, grades into sandy clay at 12 feet.	
10		0.6	CL	(12.0 to 16.1) Sandy CLAY, grayish brown, wet, ~10-20% fine-grained sand, ~ 80% medium plasticity clay, very soft.	
12		0.2			
14		0.1			
16		0.0	2/5	SP	(16.1 to 17.0) SAND, poorly graded, brown, wet, fine to medium-grained, abundant shell fragments, soft.

PBW

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Well Materials

(0.0 to 4.0) Casing, 2" sch. 40 PVC
 (4.0 to 13.5) Screen, 2" sch. 40 PVC, 0.01 slot
 (13.5 to 14.0) End Cap

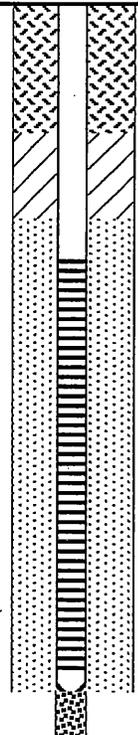
Annular Materials

(0.0-1.0) Portland Cement with 5% bentonite gel
 (1.0-3.0) Bentonite chips, 3/8"
 (3.0-14.0) Sand, 20/40 silica
 (14.0-15.0) Coated bentonite pellets

2" borehole caved in from 15-17'

PASTOR, BEHLING & WHEELER, LLC Consulting Engineers and Scientists	<h1 style="margin: 0;">Log of Boring: OMW20</h1>
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Gulfoo Marine Maintenance Superfund Site Freeport, TX	Completion Date: 05/24/07	Borehole Diameter (in.): 8.25
	Drilling Company: Master Monitoring Services, Inc.	Total Depth (ft): 17.5
	Field Supervisor: Tim Jennings, PG	Northing: 13554952.64
	Drilling Method: Hollow Stem Auger	Easting: 3154011.31
	Sampling Method: 5 ft. split spoon	Ground Elev. (ft. MSL): 1.6
PBW Project No. 1352		TOC Elev. (ft. MSL) 4.88

Depth (ft)	Well Construction Diagram	PID (ppm-v)	Recovery (ft/ft)	USCS	Lithologic Description	
0		0.0	5/5	CL	(0.0 to 0.8) Silty sandy CLAY dark gray, wet, ~ 20% silt and very fine sand, ~ 80% medium plasticity clay, soft, abundant roots, abundant organic matter.	
2		0.0		CL	(0.8 to 7.5) Sandy CLAY, reddish-brown with gray mottling, moist, ~ 10% fine sand, ~ 90% medium plasticity clay, firm, few oxidized iron nodules.	
4		0.0	4/5	CL	(7.5 to 10.0) Sandy CLAY, gray with reddish-brown mottling, moist, ~ 10-20% fine sand, ~ 80% medium plasticity clay, firm to soft.	
6		0.0		CL	(10.0 to 12.4) Silty CLAY, reddish brown, wet, < 20% low plasticity silt, > 80% high plasticity clay, soft, a few small carbonate concretions.	
8		0.1		CL	(12.4 to 13.6) Silty CLAY, gray, wet, ~ 50% silt, ~ 50% medium plasticity clay, very soft.	
10		0.2	5/5	CL	(13.6 to 15.2) Silty CLAY, reddish-brown with gray mottling, moist, ~ 20% silt and very fine sand, ~ 80% medium plasticity clay, soft.	
12		0.2		CL	(15.2 to 17.5) CLAY, gray, moist, low plasticity, friable, a few iron nodules, firm.	
14		0.2	2.5/2.5	CL		
16		0.2		CL		
18		0.2		CL		
20						
22						
24						
26						
28						
30						

<h2 style="margin: 0;">PBW</h2> <p style="margin: 0;">Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel: (512) 671-2424 Fax: (512) 671-2446</p>	<p><u>Well Materials</u></p> <p>(0.0 to 6.0) Casing, 2" sch. 40 PVC (6.0 to 15.5) Screen, 2" sch. 40 PVC, 0.01 slot (15.5 to 16.0) End Cap</p>	<p><u>Annular Materials</u></p> <p>(0.0 to 3.0) Portland Cement with 5% bentonite gel (3.0 to 5.0) Bentonite chips, 3/8" (5.0 to 16.0) Sand, 20/40 silica</p> <p style="text-align: center;">2" borehole caved in from 16-17.5'</p>
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PASTOR, BEHLING & WHEELER, LLC Consulting Engineers and Scientists		Log of Boring: OMW21			
Gulfco Marine Maintenance Superfund Site Freeport, TX		Completion Date:	05/21/07	Borehole Diameter (in.):	8.25
		Drilling Company:	Master Monitoring Services, Inc.	Total Depth (ft):	20
PBW Project No. 1352		Field Supervisor:	Tim Jennings, PG	Northing:	13555272.78
		Drilling Method:	Hollow Stem Auger	Easting:	3154248.25
		Sampling Method:	5 ft. split spoon	Ground Elev. (ft. MSL):	2.4
				TOC Elev. (ft. MSL)	5.73

Depth (ft)	Well Construction Diagram	PID (ppm-v)	Recovery (ft/ft)	USCS	Lithologic Description	
0		0.0		CL	(0.0 to 1.4) Sandy CLAY, dark brown, moist, ~ 10-20% very fine-grained sand, ~ 80-90% medium plasticity clays.	
2		0.0	5/5	CL	(1.4 to 10.0) Silty CLAY, reddish-brown, moist, medium plasticity, firm to soft, reddish-brown with gray mottling below 4 feet, becomes gray with reddish-brown mottling below 5.7 feet, wet below 8.2 feet.	
4		0.0		CL		
6		0.0		CL		
8		0.0	4/5	CL		
10		0.0		CL	(10.0 to 18.8) Sandy, silty, CLAY, gray, wet, ~ 10-20% very fine-grained sand, ~ 80-90% medium plasticity clay, a few shell fragments, very soft. Shell fragments and sand content increasing by 15 feet, light gray, ~ 10-20% shell fragments, ~ 30-40% fine to medium-grained sand, ~ 50-60% medium plasticity clay. Sand content decreasing at 17.5 feet, grayish brown, ~ 5% oyster fragments, ~ 10% very fine-grained sand, ~ 85% medium plasticity clay, firm, base of saturation between 16.3 and 17.5 feet.	
14		0.0	1/5	CL		
16		0.0	1.25/2.5	CL		
18		0.1	2.5/2.5	CL	(18.8 to 20.0) Silty CLAY, gray, moist, ~ 40-50% silt, ~ 50-60% low plasticity clay, firm.	
20						
22						
24						
26						
28						
30						

PBW

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Well Materials

(0.0 to 8.0) Casing, 2" sch. 40 PVC
(8.0 to 18) Screen, 2" sch. 40 PVC, 0.01 slot
(18 to 18.5) End Cap

Annular Materials

(0.0 to 4.5) Portland Cement with 5% bentonite gel
(4.5 to 6.5) Bentonite chips, 3/8"
(6.5 to 18.5) Sand, 20/40 silica

2" borehole caved in from 18.5-20"

Log of Boring: SA4MW22

Gulfoo Marine Maintenance
 Superfund Site
 Freeport, TX

Completion Date:	05/30/07	Borehole Diameter (in.):	8.25
Drilling Company:	Master Monitoring Services, Inc.	Total Depth (ft):	15
Field Supervisor:	Len Mason, PG	Northing:	13553934.09
Drilling Method:	Hollow Stem Auger	Easting:	3154726.12
Sampling Method:	5 ft. split spoon	Ground Elev. (ft. MSL):	5.5
		TOC Elev. (ft. MSL)	7.79

PBW Project No. 1352

Depth (ft)	Well Construction Diagram	PID (ppm-v)	Recovery (ft/ft)	USCS	Lithologic Description		
0		0.4	5/5	SC-SW	(0.0-3.1) Silty clayey SAND, reddish-brown, dry, ~ 5-10% low plasticity clay, mostly fine-grained sand with some medium-grained, some root material, subrounded, loose, clay content increasing at 2.2 feet to ~ 20-30%, some gravel and shell fragments, becoming slightly moist, decayed plant material at 3.0 to 3.1 feet.		
2				SM	(3.1 to 4.4) Clayey silty SAND, grayish-brown, slightly moist, ~ 10% clay, ~ 30% silt, ~ 60% very fine-grained, subrounded sand.		
4				CH	(4.4 to 5.0) CLAY, dark gray to grayish-black, dry slightly moist, medium plasticity, firm.		
6				SM/SC	(5.0 to 8.1) Clayey silty SAND, grayish-brown, moist, ~ 30% clay and silt, ~ 70% subrounded fine-grained sand, some clay lenses throughout, becoming saturated at 6 feet, increasingly clayey at 7.1 feet.		
8				CH	0.6	4.9/5	(8.1 to 15.0) Slightly silty CLAY, reddish-brown with some gray, very moist, high plasticity clay, soft becomes mostly gray with some reddish brown at 12 feet, some decayed vegetation.
10					0.3		
12					0.3		
14					0.6		
15					0.6		

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Well Materials

(0.0 to 4.5) Casing, 2" sch. 40 PVC
 (4.5 to 14.5) Screen, 2" sch. 40 PVC, 0.01 slot
 (14.5 to 15.0) End Cap

Annular Materials

(0.0 to 2.0) Portland Cement with 5% bentonite gel
 (2.0 to 4.0) Bentonite chips, 3/8"
 (4.0 to 15.0) Sand, 20/40 silica

Log of Boring: NC2B23B

Gulfco Marine Maintenance
Superfund Site
Freeport, TX

Completion Date:	05/31/07	Borehole Diameter (in.):	12/8.25
Drilling Company:	Master Monitoring Services, Inc.	Total Depth (ft):	40
Field Supervisor:	Tim Jennings, PG	Northing:	13554659.58
Drilling Method:	Hollow Stem Auger	Easting:	3154227.19
Sampling Method:	5 ft split spoon	Ground Elev. (ft. MSL):	2.0
		TOC Elev. (ft MSL)	2.37

PBW Project No. 1352

Depth (ft)	Well Construction Diagram	PID (ppm-v)	Recovery (ft/ft)	USCS	Lithologic Description			
0		0.0		CL	(0.0 to 0.7) Sandy CLAY, dark gray, wet, ~ 10% fine sand, ~ 90% medium plasticity clay, soft, abundant roots.			
2				CL	(0.7 to 12.6) Sandy CLAY with silt, reddish-brown with gray mottling, moist to locally wet, ~ 10-20% very fine-grained sand, ~ 80-90% medium plasticity clay, firm and locally friable, gray mottling increasing below 4.5 feet, brown organic matter from 8 to 8.5 feet, no odor, becoming wet at 10 feet, a few small sand lenses from 12 to 12.6 feet.			
4					CL/SP	(12.6 to 14.1) Sandy silty CLAY and SAND, gray, wet, ~ 20-30% fine-grained sand, ~ 20-30% silt, ~ 50% medium plasticity, a few oyster shells thin (< 0.1") sand interbeds.		
6						CL	(14.1 to 15.0) Silty CLAY, reddish-brown with gray mottling, moist, ~ 10-20% silt, ~ 80-90% medium plasticity clay, firm.	
8					CL		(15.0 to 17.3) Silty sandy CLAY, gray, moist to locally wet, ~ 10-15% very fine-grained sand and silt, ~ 85-90% medium plasticity clay, very soft, very silty (wet at 15 to 15.7 feet and at 16.3 feet).	
10						CL	(17.3 to 23.1) Silty CLAY, greenish-gray (olive), moist, < 10% silt, ~ 90% medium plasticity clay, stiff, zone of carbonate nodules at 21.5 and 22.2 feet.	
12					CL		(23.1 to 26.4) Silty CLAY, reddish brown with gray mottling, moist, ~ 20-30% silt, ~ 70-80% medium plasticity clay, soft and friable.	
14						CL	(26.4 to 35.3) Silty sandy CLAY greenish gray with brown mottling, moist, ~ 10-20% silt, ~ 5% fine-grained sand, ~ 80-90% medium plasticity clay, very firm, locally fractured, ~ 2-inch thick lens of poorly graded, fine-grained, gray sand at 27.8 to 28 feet, becoming brown to reddish-brown with gray mottling below 30 feet, abundant carbonate nodules locally from 30 to 32 feet.	
16					CH		(35.3 to 40.0) CLAY, reddish-brown with gray mottling, moist, medium plasticity, very stiff, fat clay.	
18						3/5		
20					0.0			
22				0.0	5/5			
24				0.0				
26				0.0	5/5			
28				0.5				
30	0.2	5/5						
32	0.0							
34	0.0							
36	0.0	5/5						
38								
40								

Note: Portland Cement with 5% bentonite gel placed in the annular space outside of the surface casing (0.0 to 15.0 foot)

PBW

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Well Materials

(0.0 to 15.0) Surface Casing, 8" sch. 40 PVC

Annular Materials

(15.0 to 40.0) Portland Cement with 5% bentonite gel

Lithologic description for 0 to 15 foot depth interval from NC2MW28 boring

Log of Boring: ND4MW24B

Gulfco Marine Maintenance
 Superfund Site
 Freeport, TX

Completion Date:	05/29/07	Borehole Diameter (in.):	12/8.25
Drilling Company:	Master Monitoring Services, Inc.	Total Depth (ft):	34
Field Supervisor:	Len Mason, PG	Northing:	13554569.19
Drilling Method:	Hollow Stem Auger	Easting:	3154749.48
Sampling Method:	5 ft split spoon	Ground Elev. (ft. MSL):	3.5
		TOC Elev. (ft MSL)	5.7

PBW Project No. 1352

Depth (ft)	Well Construction Diagram	PID (ppm-v)	Recovery (ft/ft)	USCS	Lithologic Description		
0				CL	(0.0 to 0.2) Silty SAND, light brown, moist, very fine-grained sand, soft.		
2				CL	(0.2 to 0.6) Sandy CLAY, dark brown, moist, ~ 20% very fine-grained sand, ~ 80% medium plasticity clay, slightly firm.		
4				CL	(0.6 to 2.0) Sandy CLAY, dark brown, becomes black below 1.5 feet.		
6				CL	(2.0 to 4.2) Sandy CLAY, locally black and dark reddish-brown, becomes highly plastic below ~ 3.0.		
8				CL	(4.2 to 8.2) Sandy CLAY as above, reddish-brown, moist, wet below 5.9 feet, with thin sand interbeds locally.		
10				CL	(8.2 to 10.4) Sandy CLAY, brown, wet, ~ 40% very fine-grained sand, ~ 60% highly plastic clay, soft.		
12				SP	(10.4 to 15.6) Poorly graded SAND with clayey sand, brown, wet, ~ 80% fine-grained sand, ~ 20% high plasticity clay, very soft.		
14				CL/SP	(15.6 to 17.0) Poorly graded SAND and sandy CLAY, brown, wet, ~ 50% very fine-grained sand, ~ 50% high plasticity clay, very soft.		
16				CH	(17.0 to 19.0) Sandy CLAY, brown to grayish brown, wet, <5% fine-grained sand, ~95% high plasticity CLAY, soft.		
18				1.3	4/5	CL	(19.0 to 20.5) Silty CLAY with some very fine-grained sand, gray to brownish-gray, wet, low to medium plasticity, soft.
20				0.8		SM	(20.5 to 22.5) Silty SAND, brown to brownish-gray, wet, sand is fine-grained with some medium sized grains, loose.
22				0.8		CH	(22.5 to 24.0) Grades into a silty CLAY with trace sand, brown to gray wet, high plasticity, soft.
24				0.3	5/5	CH	(24.0 to 34.0) Slightly silty CLAY with some trace sand, brown to gray, wet, high plasticity, becoming slightly firm to stiff at 29 feet.
26				0.1			
28				0.1			
30				0.3	4/5	CH	<i>Note: Portland Cement with 5% bentonite gel placed in the annular space outside of the surface casing (0.0 to 19.0 foot depth interval).</i>
32				0.4			
34							
36							
38							
40							

PBW

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Well Materials

(0.0 to 19.0) Surface Casing, 8" sch. 40 PVC
 (0.0 to 21.5) Casing, 2" sch. 40 PVC
 (21.5 to 26.5) Screen, 2" sch. 40 PVC, 0.01 slot
 (26.5 to 27.0) End Cap
 Lithologic description for 0 to 19 foot depth interval from ND4W03 boring

Annular Materials

(0.0 to 17.0) Portland Cement with 5% bentonite gel
 (17.0 to 20.0) Bentonite chips, 3/8"
 (20.0 to 27.0) Sand, 20/40 silica
 (27.0 to 34.0) coated bentonite pellets

Log of Boring: NG3MW25B

Gulfo Marine Maintenance
 Superfund Site
 Freeport, TX

Completion Date:	05/30/07	Borehole Diameter (in.):	2/8.25
Drilling Company:	Master Monitoring Services, Inc.	Total Depth (ft):	35
Field Supervisor:	Tim Jennings, PG	Northing:	13555045.25
Drilling Method:	Hollow Stem Auger	Easting:	3154968.84
Sampling Method:	5 ft split spoon	Ground Elev. (ft. MSL):	2.2
		TOC Elev. (ft MSL)	4.91

PBW Project No. 1352

Depth (ft)	Well Construction Diagram	PID (ppm-v)	Recovery (ft/ft)	USCS	Lithologic Description
0		0.1	4/4	SP	(0.0 to 0.4) Clayey SAND, brown, moist, ~ 20% low plasticity fines, 80% fine to medium-grained sand, soft.
2				CL	(0.4 to 7.5) Sandy CLAY, gray 0.4 - 1.4 feet becoming reddish brown with gray mottling below, moist, ~ 10-20% very fine to fine-grained sand, ~ 80-90% medium plasticity clays, firm to soft, few oxidized iron nodules, becomes saturated below 4 feet.
4				CL	(7.5 to 12.0) Silty clayey SAND, brown, wet, ~ 20-50% low plasticity fines, ~ 70-80% very fine to fine-grained sand, very soft, increasing clay content below 11 feet, grades into sandy clay at 12 feet.
6				CL	(12.0 to 16.3) Sandy CLAY (CL), grayish brown, wet, ~10-20% fine-grained sand, ~ 80% medium plasticity clay, very soft becomes reddish-brown at 15 feet.
8				SP	(16.3 to 17.5) SAND, poorly graded, brown to gray, wet, sand is fine to medium-grained, poorly graded, with abundant shell fragments (~ 10%), very soft.
10				CL SP	(17.5 to 18.4) Sandy CLAY with SAND, brown, wet, ~ 90% medium plasticity clay, with ~ 10% fine-grained sand as thin interbeds.
12				SP	(18.4 to 19.0) SAND with shell fragments.
14				CL SP	(19.0 to 19.6) CLAY, brown, wet, medium plasticity, soft, with ~ 5-10% sand lenses.
16				CL SP	(19.6 to 21.1) SAND, brown, wet, poorly graded, fine-grained, soft.
18				0.9	5/5
20	0.5	2/5	CL SP	(22.7 to 32.0) SAND, brown, wet (flowing), fine-grained, ~ 30% medium plasticity clay from 28.5 to 29 feet.	
22	0.0		CL SP	(32.0 to 35.0) Silty CLAY, brown with gray mottling, moist, ~ 90% medium plasticity clay, very stiff.	
24	0.0	5/5	SP		
26	0.0		SP		
28	0.0	5/5	SP		
30	0.0		SP		
32	0.0	5/5	SP		
34	0.0		CL		
36					<i>Note: Portland Cement with 5% bentonite gel placed outside of the surface casing (0.0 to 15.0 foot depth interval).</i>
38					
40					



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Well Materials

- (0.0 to 15.0) Surface Casing, 8" sch. 40 PVC
- (0.0 to 17.0) Casing, 2" sch. 40 PVC
- (17.0 to 27.0) Screen, 2" sch. 40 PVC, 0.01 slot
- (27.0 to 27.5) End Cap

Annular Materials

- (0.0 to 13.5) Portland Cement with 5% bentonite gel
- (13.5 to 15.5) Bentonite chips, 3/8"
- (15.5 to 27.5) Sand, 20/40 silica

Lithologic description for 0 to 17 foot depth interval from NG3MW19, borehole caved in from 27.5 to 35 feet.

PASTOR, BEHLING & WHEELER, LLC Consulting Engineers and Scientists		Log of Boring: OB26B			
Gulfco Marine Maintenance Superfund Site Freeport, TX		Completion Date: 05/30/07	Borehole Diameter (in.):	8.25	
		Drilling Company: Master Monitoring Services, Inc.	Total Depth (ft):	40	
PBW Project No. 1352		Field Supervisor: Tim Jennings, PG	Northing:	13554963.98	
		Drilling Method: Hollow Stem Auger	Easting:	3154008.4	
		Sampling Method: 5 ft split spoon	Ground Elev. (ft. MSL):	1.6	
			TOC Elev. (ft. MSL)	NA	

Depth (ft)	Well Construction Diagram	PID (ppm-v)	Recovery (ft/ft)	USCS	Lithologic Description			
0		0.0		CL	(0.0 to 0.8) Silty, sandy, CLAY, dark gray, wet, ~ 20% silt and very fine-grained sand, ~ 80% medium plasticity clay, soft, abundant roots abundant organic matter.			
2				CL	(0.8 to 7.5) Sandy CLAY, reddish-brown with gray mottling, moist, ~ 10% fine sand, ~ 90% medium plasticity clay, firm, few oxidized iron nodules.			
4				CL	(7.5 to 10.0) Sandy CLAY, gray with reddish-brown mottling, moist, ~ 10-20% fine-grained sand, ~ 80% medium plasticity clay, firm to soft.			
6				CL	(10.0 to 12.4) Silty CLAY, reddish brown, wet, < 20% low plasticity silt, > 80% high plasticity clay, soft, a few small carbonate concretions			
8				CL	(12.4 to 13.6) Silty CLAY, gray, wet, ~ 50 % silt, ~ 50% medium plasticity clay, very soft.			
10				CL	(13.6 to 15.2) Silty CLAY, reddish-brown with gray mottling, moist, ~ 20% silt and very fine-grained sand, ~ 80% medium plasticity clay, soft.			
12				CL	(15.2 to 17.0) CLAY, gray, moist, low plasticity, friable, a few iron nodules, firm.			
14				CL	(17.0 to 20.2) Silty CLAY, gray with brown mottling, moist, ~ 10-20% silt decreasing with depth, ~ 80-90% medium plasticity clay, very firm, few carbonaceous nodules.			
16				CL	(20.2 to 20.6) Clayey SAND, gray, moist, ~ 40% low plasticity clay, ~ 60% fine-grained sand, firm.			
18				CL	(20.6 to 22.9) Silty CLAY, gray with brown mottling, moist, ~ 10-20% silt, ~ 80-90% medium plasticity clay, very firm, a few carbonate nodules.			
20				CL	(22.9 to 25.8) Silty CLAY, reddish brown with gray mottling, moist, ~ 10-20% silt, ~ 80-90% medium plasticity clay, < 5% carbonate nodules and seams, locally fractured, very stiff.			
22				CL	(25.8 to 40.0) Silty CLAY, greenish-gray with brown mottling, moist, ~ 10% silt, ~ 90% medium plasticity clay, very firm to stiff, few carbonate nodules, reddish brown below 34 feet, increase in silt from 36.5 to 37 feet, ~ 50% silt, moist.			
24				CL				
26				CL				
28				CL				
30				CL				
32				CL				
34	CL							
36	CL							
38	CL							
40	CL							

Note: Portland Cement with 5% bentonite gel placed in the annular space outside of the surface casing (0.0 to 17.0 foot depth interval).

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Well Materials
(0.0 to 17.0) Surface Casing, 8" sch. 40 PVC

Annular Materials
(17.0 to 40.0) Portland Cement with 5% bentonite gel

Lithologic description for 0 to 17 foot depth interval logged from OMW20 boring

PASTOR, BEHLING & WHEELER, LLC
Consulting Engineers and Scientists

Log of Boring: OMW27B

Gulfco Marine Maintenance
Superfund Site
Freeport, TX

Completion Date:	05/29/07	Borehole Diameter (in.):	12/8.25
Drilling Company:	Master Monitoring Services, Inc.	Total Depth (ft):	30
Field Supervisor:	Tim Jennings, PG	Northing:	13555282.97
Drilling Method:	Hollow Stem Auger	Easting:	3154239.25
Sampling Method:	5 ft split spoon	Ground Elev. (ft. MSL):	2.8
		TOC Elev. (ft MSL)	5.45

PBW Project No. 1352

Depth (ft)	Well Construction Diagram	PID (ppm-v)	Recovery (ft/ft)	USCS	Lithologic Description			
0		0.1	4/5	CL	(0.0 to 1.4) Sandy, CLAY, dark brown, moist, ~ 10-20% very fine-grained sand, ~ 80-90% medium plasticity clays.			
2				CL	(1.4 to 10.0) Silty CLAY, reddish-brown, moist, medium plasticity clay, firm to soft, reddish-brown with gray mottling below 4 feet, becomes gray with reddish-brown mottling below 5.7 feet, wet below 8.2 feet.			
4								
6								
8								
10				CL	(10.0 to 18.8) Sandy silty CLAY, gray, wet, ~ 10-20% very fine-grained sand, ~ 80-90% medium plasticity clay, a few shell fragments, very soft, shell fragments and sand content increasing by 15 feet, light gray, ~ 10-20% shell fragments, ~ 30-40% fine to medium-grained sand, ~ 50-60% medium plasticity clay, sand content decreasing at 17.5 feet, grayish brown, ~ 5% oyster fragments, ~ 10% very fine-grained sand, ~ 85% medium plasticity clay, firm.			
12								
14								
16				CL/SP	0.0	4/5	CL	(18.8 to 19.0) Silty CLAY, gray, moist, ~ 40-50% silt, ~ 50-60% low plasticity clay, firm.
18								
20	SP	0.0	4.5/5	CL	(19.0 to 22.4) Sandy, silty, CLAY with poorly graded SAND, brown, wet, ~ 30-40% very fine-grained sand and silt, ~ 60-70% medium plasticity clay, soft.			
22								
24								
26	CL	0.2	4.5/5	CL	(22.4 to 24.0) Silty CLAY, reddish-brown with gray mottling, moist, medium plasticity, a few carbonate nodules, very firm.			
28								
30								
32								
34					(24.0 to 26.9) SAND, brown, wet, poorly graded, fine-grained, soft.			
36					(26.9 to 30.0) CLAY, reddish brown with gray mottling to 27.8, gray below 27.8, moist, medium plasticity, very firm.			
38					<i>Note: Portland Cement with 5% bentonite gel placed in the annular space outside of the surface casing (0.0 to 19.0 foot depth interval).</i>			
40								

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Well Materials

(0.0 to 19.0) Surface Casing, 8" sch. 40 PVC
(0.0 to 24.5) Casing, 2" sch. 40 PVC
(24.5 to 27) Screen, 2" sch. 40 PVC, 0.01 slot
(27.0 to 27.5) End Cap

Annular Materials

(0.0 to 18.5) Portland Cement with 5% bentonite gel
(18.5 to 23.5) Bentonite chips, 3/8"
(23.5 to 30.0) Sand, 20/40 silica

Lithologic description for 0 to 19 foot depth interval logged from OMW21 boring

PASTOR, BEHLING & WHEELER, LLC
 Consulting Engineers and Scientists

Log of Boring: NC2MW28

Gulfco Marine Maintenance
 Superfund Site
 Freeport, TX

Completion Date:	05/25/07	Borehole Diameter (in.):	8.25
Drilling Company:	Master Monitoring Services, Inc.	Total Depth (ft):	15
Field Supervisor:	Tim Jennings, PG	Northing:	13554651.88
Drilling Method:	Hollow Stem Auger	Easting:	3154233.16
Sampling Method:	5 ft. split spoon	Ground Elev. (ft. MSL):	1.8
		TOC Elev. (ft. MSL)	4.76

PBW Project No. 1352

Depth (ft)	Well Construction Diagram	PID (ppm-v)	Recovery (ft/ft)	USCS	Lithologic Description	
0		0.2	5/5	CL	(0.0 to 0.7) Sandy CLAY, dark gray, wet, ~ 10% fine-grained sand, ~ 90% medium plasticity clay, soft, abundant roots.	
2		0.0		CL	(0.7 to 12.6) Sandy CLAY with silt, reddish-brown with gray mottling, moist to locally wet, ~ 10-20% very fine-grained sand, ~ 80-90% medium plasticity clay, firm and locally friable, gray mottling increasing below 4.5 feet, brown organic matter from 8 to 8.8 feet, no odor, becoming wet at 10 feet, a few thin sand lenses from 12 to 12.6 feet.	
4		0.0		CL		
6		0.0	CL			
8		0.0	CL			
10		0.0	CL			
12		0.0	CL			
14		0.0	5/5	CL/SP	(12.6 to 14.1) Sandy silty CLAY, gray, wet, ~ 20-30% fine-grained sand, ~ 20-30% silt, ~ 50% medium plasticity clay, very soft, few oyster shells, a few thin (< 0.1") sand interbeds.	
14.1		0.0		CL	(14.1 to 15.0) Silty CLAY, reddish-brown with gray mottling, moist, ~ 10-20% silt, ~ 80-90% medium plasticity clay, firm.	
16						
18						
20						
22						
24						
26						
28						
30						

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Well Materials

(0.0 to 5.0) Casing, 2" sch. 40 PVC
 (5.0 to 14.5) Screen, 2" sch. 40 PVC, 0.01 slot
 (14.5 to 15.0) End Cap

Annular Materials

(0.0 to 1.0) Portland Cement with 5% bentonite gel
 (1.0 to 4.0) Bentonite chips, 3/8"
 (4.0 to 15.0) Sand, 20/40 silica

This boring log should not be used separately from the original report.

PASTOR, BEHLING & WHEELER, LLC Consulting Engineers and Scientists		Log of Boring: ND3MW29			
Gulfco Marine Maintenance Superfund Site Freeport, TX		Completion Date:	05/31/07	Borehole Diameter (in.):	8.25
		Drilling Company:	Master Monitoring Services, Inc.	Total Depth (ft):	17.5
PBW Project No. 1352		Field Supervisor:	Tim Jennings, PG	Northing:	13554733.7
		Drilling Method:	Hollow Stem Auger	Easting:	3154525.86
		Sampling Method:	5 ft. split spoon	Ground Elev. (ft. MSL):	2.9
				TOC Elev. (ft MSL)	5.33

Depth (ft)	Well Construction Diagram	PID (ppm-v)	Recovery (ft/ft)	USCS	Lithologic Description
0		4.2	4.5/5	CL	(0.0 to 1.8) Sandy CLAY with gravel, brown with gray mottling, locally moist, ~ 20% fine-grained sand, ~ 80% medium plasticity clay, < 5% gravel and shell fragments, soft.
2		117		CL	(1.8 to 7.1) Silty CLAY, gray to dark gray, wet from 1.8 to 2.6 feet, moist below 2.6 feet, soft to firm, decaying marsh type vegetation from 1.8 to 2.6 feet.
4		249	4.5/5	CL/SM ML	(7.1 to 12.5) Sandy silty CLAY, brown, wet, ~ 10-20% fine-grained sand, ~ 30-80% silt, ~ 30-60% medium plasticity clay, soft, wood fragments and black staining from 8.3 to 8.6 feet, moderate creosote like odor, local black staining from 10.5 to 12 feet.
6		276		CL	(12.5 to 16.6) Poorly graded SAND and silty SAND, brown, wet, ~ 10-30% silt, wet locally from 12.5 to 13.5 feet and wet below 15.4 feet, ~ 70 -100% very fine to fine-grained sand, locally abundant NAPL visible within sand from 12.5 to 13.5 feet and slight to moderate NAPL (sheen) visible within sand from 15 to 16.4 feet, moderate organic odor, soil sample (SB-MW29-01) collected from 12.5 to 13.5 feet.
8		585	3/5	SP/SM	(16.6 to 17.5) Silty CLAY, reddish-brown, wet, ~ 10-20% silt, ~ 80-90% medium plasticity clay, very soft, no NAPL staining or sheen observed within clay.
10		162	2.5/2.5	CL	
12		585			
14		884			
16		527			
18					
20					
22					
24					
26					
28					
30					

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Well Materials

(0.0 to 7.0) Casing, 2" sch. 40 PVC
(7.0 to 17.0) Screen, 2" sch. 40 PVC, 0.01 slot
(17.0 to 17.5) End Cap

Annular Materials

(0.0 to 3.0) Portland Cement with 5% bentonite gel
(3.0 to 5.0) Bentonite chips, 3/8"
(5.0 to 17.5) Sand, 20/40 silica

Log of Boring: NE3MW30B

Gulfco Marine Maintenance
 Superfund Site
 Freeport, TX

Completion Date:	11/26/07	Borehole Diameter (in.):	12.5/8.25
Drilling Company:	Universal Drilling Services	Total Depth (ft):	35.5
Field Supervisor:	Len Mason, PG	Northing:	13554690.78
Drilling Method:	Hollow Stem Auger	Easting:	3154741.85
Sampling Method:	5 ft core barrel	Ground Elev. (ft. MSL):	3.5
		TOC Elev. (ft MSL)	6.70

PBW Project No. 1352

Depth (ft)	Well Construction Diagram	PID (ppm-v)	Recovery (ft/ft)	USCS	Lithologic Description
0		246	4.7/5	CL	(0.0-0.9) Sandy, silty, CLAY, brown with some orange mottling, moist, ~ 10-15% very fine sand, ~ 30% silt, soft, medium to low plasticity.
2				CL	(0.9-2.8) CLAY, brown, moist, medium plasticity, trace wood fragment at 1.8 feet.
4				CL	(2.8-8.0) Sandy CLAY, gray, moist to wet at 4.5 feet, some (~ 10%) sandy lenses, soft, medium-high plasticity, gray with some brown mottling below 5 feet.
6			4/5	CL	(8.0-12.5) Sandy CLAY, brown with gray mottling to 10 feet, brown below 10 feet, moist, ~ 20-30% fine sand, very soft, medium plasticity, becomes wet below 11.2 feet.
8				CL	
10			5/5	CL	(12.5-17.0) Silty SAND, brown, wet, sand is very fine, ~ 20% silt, loose.
12				SM	
14			2.5/3	SM	(17.0-18.0) Clayey, silty, SAND, brown with some gray, wet, ~ 10-15% gray clay, ~ 30% silt, sand is very fine, loose.
16				SM-SC	
18			2/2	CL	(18.0-20.0) CLAY with some silty sand zones, brown, moist, soft, medium-high plasticity, becomes gray and firm at 19 feet.
20				CL	
22			2/5	SM	(20.0-25.0) Silty SAND, brown, wet, sand is very fine, loose, chemical odor, sheen observed, flowing sand.
24				SM	
26			2/2.5	CH	(25.0-25.5) Slightly sandy CLAY, gray, moist, ~ 5-10% very fine sand, soft, medium-high plasticity, chemical odor.
28				SC	
30	2/2.5	CH	(25.5-26.4) Slightly clayey SAND, brown and gray, wet, ~ 10% fine clay layers throughout, sand very fine, slight odor.		
32		SM/SP			
34	1/2.5	CL	(26.4-26.8) Sandy CLAY, brownish-gray, moist, high plasticity, soft to firm.		
36		CL			
38	2.5/2.5	SW	(26.8-27.5) Silty SAND with some shell material, gray, wet, sand is very fine, ~ 20% silt, chemical odor.		
40		SW			
		3109		CL	(27.5-28.5) Sandy CLAY, gray, moist, ~ 20-30% fine sand, soft, high plasticity, chemical odor, wet gray sand layer with shell material from 28-28.2 feet.
		304		CL	(28.5-34.1) SAND, brown to gray, wet, shell material throughout, fine to medium sand, subrounded to subangular, strong chemical odor, sheen throughout, locally abundant NAPL visible within sand from 33.9 to 34.1, soil sample (SBMW30-01) collected from 33.6-34.1 feet.
				CL	(34.1-35.5) CLAY, gray, moist, high plasticity, firm, fat clay, slight odor, no NAPL staining or sheen observed within clay.

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Well Materials

(0.0 to 19.5) Surface Casing, 12" sch. 40 PVC
 (0.0 to 25.0) Casing, 2" sch. 40 PVC
 (25.0 to 35.0) Screen, 2" sch. 40 PVC, 0.01 slot
 (35.0 to 35.5) End Cap

Annular Materials

(0.0 to 18.5) Portland Cement with 5% bentonite gel outside of surface casing
 (0.0 to 23.0) Bentonite chips, 3/8" inside surface casing
 (23.0 to 35.5) Sand, 16/30 silica

PASTOR, BEHLING & WHEELER, LLC
Consulting Engineers and Scientists

Log of Boring: NE4MW31B

Gulfco Marine Maintenance Superfund Site Freeport, TX	Completion Date: 06/13/08	Borehole Diameter (in.): 8.0/13.0
	Drilling Company: Universal Drilling	Total Depth (ft): 45
	Field Supervisor: Tim Jennings, P.G.	Northing: 3154903.18
PBW Project No. 1352	Drilling Method: Hollow Stem Auger	Easting: 13554709.81
	Sampling Method: 5 ft. split spoon	Ground Elev. (ft. MSL): 3.0
		TOC Elev. (ft MSL) 6.01

Depth (ft)	Well Construction Diagram	PID (ppm-v)	Recovery (ft/ft)	USCS	Lithologic Description
0				RD BASE	(0.0-0.8) Caliche road base.
0.2		5/5		CL/CH	(0.8-6.2) Sandy CLAY, gray with brown mottling, moist, ~5 to 10% fine-grained sand, ~90 to 95% medium to high plasticity clays.
0.3				CH	(6.2-8.5) Silty sandy CLAY, brown with gray mottling, moist to locally wet, ~5 to 10% fine-grained sand, ~15 to 20% silt, ~70 to 80% high plasticity clay, soft.
0.4		5/5		ML	(8.5-9.4) Clayey SILT, grayish-brown, wet, ~30 to 40% high plasticity clay, ~60 to 70% silt, soft.
0.2				SM	(9.4-11.3) Silty SAND, grayish-brown to brown, wet, ~10 to 30% silt, ~70 to 90% fine-grained sand, soft.
0.2		5/5		ML	(11.3-13.4) Sandy clayey SILT, brown, wet, ~10 to 20% high plasticity clay, ~20 to 30% fine-grained sand, ~50 to 70% silt, very soft.
0.2				CH	(13.4-16.0) Sandy CLAY, grayish-brown, wet, ~10 to 20% very fine-grained sand, ~80 to 90% high plasticity clay, very soft.
0.2		1/5		NR	(16.0-20.0) NO RECOVERY.
0.2		2.5/5		SP	(20.0-30.0) SAND, poorly graded, brown, wet, very fine-grained to medium-grained sand with ~5% shell fragments at 20.0 to 21.5, very fine-grained to fine-grained sand with trace shell fragments at 21.5 to 30.0, firm, trace gray clay.
2.5/5					
2.5/5					
0/5				NR	(30.0-40.0) NO RECOVERY in flowing sands.
0/5					
0.25/5				CL	(40.0-45.0) Sandy CLAY in shoe of core barrell, only recovered 0.2', drilled like clay.

PBW

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Well Materials (0.0-16.0) Surface Casing, 10" sch. 40 PVC (0.0-18.0) Casing, 2" sch. 40 PVC (18.0-28.0) Screen, 2" sch. 40 PVC, 0.01" slot (28.0-28.3) End Cap	Annular Materials (0.0-12.0) Cement/Bentonite slurry, inside surf. casing (0.0-16.0) Cement/Bentonite slurry, outside surf. casing (12.0-17.0) 3/8" bentonite chips, inside surf. casing (17.0-29.7) 16/30 silica sand
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This boring log should not be used separately from the original report.

PASTOR, BEHLING & WHEELER, LLC
 Consulting Engineers and Scientists

Log of Boring: NE4MW32C

Gulfc0 Marine Maintenance
 Superfund Site
 Freeport, TX

Completion Date:	06/13/08	Borehole Diameter (in.):	8.0/13.0/17.5
Drilling Company:	Universal Drilling	Total Depth (ft):	80
Field Supervisor:	Tim Jennings, P.G.	Northing:	3154802.32
Drilling Method:	Hollow Stem Auger	Easting:	13554653.07
Sampling Method:	5 ft. split spoon	Ground Elev. (ft. MSL):	3.2
		TOC Elev. (ft MSL)	6.31

PBW Project No. 1352

Depth (ft)	Well Construction Diagram	PID (ppm-v)	Recovery (ft/ft)	USCS	Lithologic Description
0				RD BASE	(0.0-0.5) Caliche road base, plugged sampler, no recovery.
0.25			0.25/5	CL	(0.5-5.0) Sandy CLAY.
5		0.5			
0.5			0.5/5	ML	(5.0-10.0) Sandy SILT, brown, wet, ~20 to 30% fine-grained sand, ~70 to 80% low plasticity silt.
10		0.1			
0.1			5/5	SM	(10.0-14.4) Silty clayey SAND, brown, wet, ~10 to 20% medium plasticity clay in thin (<0.5") interbeds, 20 to 30% low plasticity silt, ~50 to 80% fine-grained sand, soft.
15		0.1			
0.1			5/5	SP	(14.4-19.2) SAND, poorly graded, brown, wet, very fine-grained to fine-grained sand, soft; black, natural organic material locally.
20		0.2			
0.6			5/5	CL	(19.2-20.5) CLAY, grayish-brown, wet, medium plasticity clay, locally bedded, soft.
25		5/5		CL	(20.5-26.2) Sandy CLAY, grayish-brown, wet, ~20 to 30% fine-grained sand, ~70 to 80% medium plasticity clay, very soft, barrel filled with cuttings and slough from inside casing--resulted in poor recovery.
30		44.1			
2.5			2.5/5	SP	(26.2-29.0) SAND, grades to poorly graded sand, brown, wet, very fine-grained to fine-grained sand, very soft.
35		14.2			
3/5			3/5	SP	(29.0-35.0) Poorly graded SAND and clayey SAND, wet, ~10% high plasticity clay in sand locally, ~90% fine-grained to medium-grained sand, shell fragments throughout.
40		0			
2/5			2/5	SP	(35.0-40.2) SAND, poorly graded, brown, wet, very fine-grained to fine-grained sand, compact, gray below 39.0.
41		1		CH	(40.2-41.7) CLAY, gray, wet, high plasticity clay, soft.

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Well Materials
 (0.0-20.0) Surface Casing, 14" sch. 40 PVC
 (0.0-48.8) Surface Casing, 10" sch. 40 PVC
 (0.0-64.0) Casing, 2" sch. 40 PVC
 (64.0-74.0) Screen, 2" sch. 40 PVC, 0.01" slot
 (74.0-74.3) End Cap

Annular Materials
 (0.0-10.0) Bentonite chips, inside 10" casing
 (0.0-20.0) Cement/Bentonite slurry, outside 14" casing
 (0.0-48.8) Cement/Bentonite slurry, outside 10" casing
 (10.0-58.3) Cement/Bentonite slurry, inside 10" casing
 (58.3-62.0) 3/8" bentonite chips
 (62.0-76.0) 16/30 silica sand
 (76.0-80.0) Coated bentonite pellets

This boring log should not be used separately from the original report.

PASTOR, BEHLING & WHEELER, LLC
Consulting Engineers and Scientists

Log of Boring: NE4MW32C

Gulfc0 Marine Maintenance
Superfund Site
Freeport, TX

Completion Date:	06/13/08	Borehole Diameter (in.):	8.0/13.0/17.5
Drilling Company:	Universal Drilling	Total Depth (ft):	80
Field Supervisor:	Tim Jennings, P.G.	Northing:	3154802.32
Drilling Method:	Hollow Stem Auger	Easting:	13554653.07
Sampling Method:	5 ft. split spoon	Ground Elev. (ft. MSL):	3.2
		TOC Elev. (ft. MSL):	6.31

PBW Project No. 1352

Depth (ft)	Well Construction Diagram	PID (ppm-v)	Recovery (ft/ft)	USCS	Lithologic Description	
45			3/5	SP	(41.7-45.8) Poorly graded SAND and clayey SAND, gray, wet, ~20% high plasticity clay, ~80% fine-grained sand.	
			9.2	CH	(45.8-47.1) CLAY, gray, wet, high plasticity clay.	
			5/5	CB	(47.1-47.4) SAND, poorly graded, gray, wet, fine-grained to medium-grained sand interbedded in clay.	
50			0.9		(47.4-47.7) CLAY, gray, wet.	
			3/3	CL	(47.7-55.0) Sandy CLAY, reddish-brown with gray mottling, ~5 to 10% very fine-grained sand, ~90 to 95% medium plasticity clay, a few small shell fragments near top, very stiff and dense.	
55			2/2			
			2/2	CH	(55.0-60.0) Silty CLAY, gray with local red mottling, moist, ~5 to 10% silt as very thin interbeds and lenses, a few silt lenses and thin (<0.1') interbeds at 57.0 to 58.5.	
60			0.1	3/3	CH	(60.0-60.5) CLAY, gray, ~20 to 30% shell fragments.
			0	5/5		
65			0.2	5/5	CH	(60.5-72.7) CLAY, very dark gray, moist, high plasticity, clay with abundant natural organic material at 62.5 to 68.0, a few shell fragments.
70			0.5			
			0.3	5/5	SHELL	(72.7-73.0) SHELL layer, appears to contain some water.
75			CH	(73-73.8) CLAY, similar to the material at 60.5 to 72.7.		
80		0.3	5/5	CH	(73.8-80) CLAY, bluish-gray, moist, high plasticity clay with few shell fragments, very firm to stiff, thin silt bed at 77.7.	

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Well Materials
(0.0-20.0) Surface Casing, 14" sch. 40 PVC
(0.0-48.8) Surface Casing, 10" sch. 40 PVC
(0.0-64.0) Casing, 2" sch. 40 PVC
(64.0-74.0) Screen, 2" sch. 40 PVC, 0.01" slot
(74.0-74.3) End Cap

Annular Materials
(0.0-10.0) Bentonite chips, inside 10" casing
(0.0-20.0) Cement/Bentonite slurry, outside 14" casing
(0.0-48.8) Cement/Bentonite slurry, outside 10" casing
(10.0-58.3) Cement/Bentonite slurry, inside 10" casing
(58.3-62.0) 3/8" bentonite chips
(62.0-76.0) 16/30 silica sand
(76.0-80.0) Coated bentonite pellets

This boring log should not be used separately from the original report.

PASTOR, BEHLING & WHEELER, LLC Consulting Engineers and Scientists	<h2 style="margin: 0;">Log of Boring: NB4PZ01</h2>
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Gulfco Marine Maintenance Superfund Site Freeport, TX	Completion Date:	07/21/06	Borehole Diameter (in.):	2
	Drilling Company:	Best Drilling Services, Inc.	Total Depth (ft):	22
	Field Supervisor:	Len Mason, P.G.	Northing:	13554276.47
	Drilling Method:	Direct Push	Easting:	3154459.85
	Sampling Method:	4 ft split spoon	Ground Elev. (ft. MSL):	2.3
PBW Project No. 1352			TOC Elev. (ft MSL):	---

Depth (ft)	PID (ppm-v)	Recovery (ft/ft)	USCS	Lithologic Description
0			SC/SM	(0.0 to 0.7) Clayey silty SAND, brown, very fine-grained, subrounded, quartz, very low plasticity to uncohesive, dry.
2	0.5	3.1/4	CL	
4	0.8		CL	(0.7 to 13.1) CLAY, brown and gray, slightly mottled, soft, medium plasticity, slightly moist, becoming soft and moist below 5.4; becoming very soft at 6.6; becoming very moist to saturated at 8.0; becoming mostly greenish-gray with some brown, moist to very moist, saturated in areas at 9.0.
6	0.8	3.6/4	CL	
8	0.9		CL	
10	0.9	3.8/4	CL	
12	0.9		CL	(13.1 to 18.9) Slightly sandy clayey SILT, brown, and greenish gray, very soft, uncohesive, saturated.
14		3.7/4	ML	
16	1.3		ML	
18	1.6	4/4	ML	(18.9 to 22.0) CLAY, gray to olive gray, firm, medium plasticity, slightly moist to dry, trace gravel.
20	1.9		CL	
22	1.7	2/2	CL	
24				
26				
28				
30				

<h1 style="margin: 0;">PBW</h1> <p style="margin: 5px 0 0 0;">Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446</p>	<p><u>Comments:</u></p> <p>A temporary piezometer (screened interval 9 - 19 ft.) was installed adjacent to this location.</p> <p>The borehole was plugged with bentonite pellets.</p> <p>This boring log should not be used separately from the original report.</p>
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PASTOR, BEHLING & WHEELER, LLC
 Consulting Engineers and Scientists

Log of Boring: NC3PZ02

Gulfc0 Marine Maintenance
 Superfund Site
 Freeport, TX

Completion Date:	07/21/06	Borehole Diameter (in.):	2
Drilling Company:	Best Drilling Services, Inc.	Total Depth (ft):	28
Field Supervisor:	Len Mason, P.G.	Northing:	13554519.81
Drilling Method:	Direct Push	Easting:	3154398.52
Sampling Method:	4 ft split spoon	Ground Elev. (ft. MSL):	2.9
		TOC Elev. (ft MSL):	---

PBW Project No. 1352

Depth (ft)	PID (ppm-v)	Recovery (ft/ft)	USCS	Lithologic Description
0				
2	0.6	3.6/4	CL	(0.0 to 14.6) Silty CLAY, reddish-brown to brown, soft, low plasticity, slightly moist; becoming gray and reddish-brown to brown, slightly mottled at 3.0; becoming greenish-gray and brown, slightly mottled, very soft at 8.0.
4	0.9			
6	0.9	3.9/4		
8	1.2			
10	1.5	3.6/4		
12				
14		4/4		
16	0.6		ML	(14.6 to 15.9) Clayey SILT, brown and grayish-brown, saturated, very soft, uncohesive.
18	1	3.8/4		(15.9 to 17.0) CLAY, gray, medium plasticity, soft to firm, moist.
20	1.9			(17.0 to 19.3) Silty CLAY, brown and gray, very soft, uncohesive, very moist.
22	2	3.7/4	CL	(19.3 to 20.0) CLAY, gray, some greenish-gray, soft to firm, medium plasticity, slightly moist.
24	1.4			(20.0 to 22.5) Silty CLAY, brown and gray, very soft, uncohesive, very moist.
26	1.1	3.8/4		(22.5 to 28.0) CLAY, trace gravel, gray and olive-brown, mottled, reddish-brown at 26.7 to 27.6, firm, slightly moist to dry, medium plasticity.
28	1.7			
30				

PBW

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 Tel (512) 671-3434 Fax (512) 671-3446

Comments:

- A temporary piezometer (screened interval 12.5 - 22.5 ft.) was installed adjacent to this location.
- The borehole was plugged with bentonite pellets.
- This boring log should not be used separately from the original report.

PASTOR, BEHLING & WHEELER, LLC Consulting Engineers and Scientists		Log of Boring: ND1PZ03	
Gulco Marine Maintenance Superfund Site Freeport, TX	Completion Date:	07/21/06	Borehole Diameter (In.): 2
	Drilling Company:	Best Drilling Services, Inc.	Total Depth (ft): 18
	Field Supervisor:	Len Mason, P.G.	Northing: 13554945.56
	Drilling Method:	Direct Push	Easting: 3154263.8
PBW Project No. 1352	Sampling Method:	4 ft split spoon	Ground Elev. (ft. MSL): 2.2
			TOC Elev. (ft MSL): ---

Depth (ft)	PID (ppm-V)	Recovery (ft/ft)	USCS	Lithologic Description
0			CL	(0.0 to 1.2) Slightly sandy, silty CLAY, brown; very fine-grained, subrounded, quartz sand; firm, medium plasticity, slightly moist.
2	6.2	2.9/4		
4	10.5			
6	8.8	3.7/4		
8	25.2			
10	12.5	3.9/4		
12	44.7			
14	24.9	3.9/4	(1.2 to 15.7) CLAY, brown and gray, slightly mottled, soft to firm, medium plasticity, slightly moist, very moist at 4.0, some black staining at 10.2, saturated and very soft at 12.0.	
16	17.9			
18		1/2		(15.7 to 18.0) CLAY, gray, firm, medium plasticity, dry to slightly moist.
18	29.3			
20				
22				
24				
26				
28				
30				

<p style="text-align: center; font-size: 2em; font-weight: bold;">PBW</p> <p>Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446</p>	<p><u>Comments:</u></p> <p>A temporary piezometer (screened interval 5.5 - 15.5 ft.) was installed adjacent to this location.</p> <p>The borehole was plugged with bentonite pellets.</p> <p>This boring log should not be used separately from the original report.</p>
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PASTOR, BEHLING & WHEELER, LLC Consulting Engineers and Scientists	<h2 style="margin: 0;">Log of Boring: ND3PZ04</h2>
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Gulfco Marine Maintenance Superfund Site Freeport, TX	Completion Date: 07/21/06	Borehole Diameter (in.): 2
	Drilling Company: Best Drilling Services, Inc.	Total Depth (ft): 20
	Field Supervisor: Len Mason, P.G.	Northing: 13554698.81
	Drilling Method: Direct Push	Easting: 3154524.94
PBW Project No. 1352	Sampling Method: 4 ft split spoon	Ground Elev. (ft. MSL): 2.4
		TOC Elev. (ft MSL): ---

Depth (ft)	PID (ppm-v)	Recovery (ft/ft)	USCS	Lithologic Description
0				(0.0 to 1.1) Slightly sandy CLAY, gray, some olive-brown; very fine-grained, subrounded sand; soft, low plasticity, slightly moist.
2	60.1	3/4	CL	(1.1 to 4.5) CLAY, gray, some olive-brown, soft to slightly firm, medium plasticity, slightly moist.
4				
6	167	2.9/4	CL/ML	(4.5 to 6.5) Silty CLAY to clayey SILT, brown and gray, mottled, very soft, low plasticity, very moist to saturated, slight odor.
8	181			
10	170			
12	304	3.5/4		
14	121		ML	(6.5 to 17.0) Sandy clayey SILT, brown; very fine-grained, poorly sorted, subrounded, quartz sand; uncohesive, saturated, odor.
16	166	3.9/4		
18	13			
20	28.1	3.8/4	CL	(17.0 to 20.0) CLAY, brown, some gray, very soft, medium plasticity, moist, odor, becoming greenish-gray, firm to medium plasticity, slightly moist to dry, trace iron nodules at 19.0.
22	8.1			
24				
26				
28				
30				

<h1 style="margin: 0;">PBW</h1> <p style="margin: 5px 0 0 0;">Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446</p>	<p><u>Comments:</u></p> <p>A temporary piezometer (screened interval 7 - 17 ft.) was installed adjacent to this location.</p> <p>The borehole was plugged with bentonite pellets.</p> <p>This boring log should not be used separately from the original report.</p>
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PASTOR, BEHLING & WHEELER, LLC
 Consulting Engineers and Scientists

Log of Boring: NF1PZ05

Gulfco Marine Maintenance
 Superfund Site
 Freeport, TX

Completion Date:	08/01/06	Borehole Diameter (in.):	2
Drilling Company:	Best Drilling Services, Inc.	Total Depth (ft):	18
Field Supervisor:	Tim Jennings, P.G.	Northing:	13555211
Drilling Method:	Direct Push	Easting:	3154490.84
Sampling Method:	4 ft split spoon	Ground Elev. (ft. MSL):	2.2
		TOC Elev. (ft. MSL):	---

PBW Project No. 1352

Depth (ft)	PID (ppm-V)	Recovery (ft/ft)	USCS	Lithologic Description
0	3.1			
2		1/4	CL	(0.0 to 6.2) Sandy CLAY, dark grayish-brown, moist, ~ 20% fine-grained sand, ~ 80% medium plasticity clay, firm.
4	4.9			
6		3/4	SC/SM	(6.2 to 8.0) Silty clayey SAND, brown, wet, ~ 50% medium plasticity fines, ~ 50% very fine to fine-grained sand, soft.
8	4.8		CH	(8.0 to 9.7) Silty CLAY, gray to brown, wet, high plasticity, soft.
10	3.6	4/4	SM/SC	(9.7 to 12.0) Silty clayey SAND, brown, wet, ~ 20% to 30% high plasticity fines, ~ 70% to 80% very fine to fine-grained sand, soft.
12	1.3		CH	(12.0 to 13.4) Silty sandy CLAY, brown, wet, ~ 30% to 40% very fine-grained sand and silt, ~ 60% to 70% high plasticity clay, very soft.
14	1.2	4/4	SM/CH	(13.4 to 16.7) Silty SAND and CLAY, brown, wet, ~ 20% to 30% high plasticity fines (thin clay interbeds), ~ 70% to 80% very fine to fine-grained sand, soft.
16				
18	1.3	2/2	CH/SP	(16.7 to 18.0) Interbedded CLAY and SAND, ~30% poorly graded sand as thin (< 0.1 inch) beds and ~ 70% high plasticity clay, top of first confining clay.
20				
22				
24				
26				
28				
30				

PBW

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Comments:

A temporary piezometer (screened interval 8 - 18 ft.) was installed adjacent to this location.
 The borehole was plugged with bentonite pellets.
 This boring log should not be used separately from the original report.

PASTOR, BEHLING & WHEELER, LLC
Consulting Engineers and Scientists

Log of Boring: NF3PZ06

Gulfco Marine Maintenance
Superfund Site
Freeport, TX

Completion Date:	07/31/06	Borehole Diameter (in.):	2
Drilling Company:	Best Drilling Services, Inc.	Total Depth (ft):	16
Field Supervisor:	Tim Jennings, P.G.	Northing:	13554991.77
Drilling Method:	Direct Push	Easting:	3154813.75
Sampling Method:	4 ft split spoon	Ground Elev. (ft. MSL):	2.5
		TOC Elev. (ft MSL):	---

PBW Project No. 1352

Depth (ft)	PID (ppm-v)	Recovery (ft/ft)	USCS	Lithologic Description
0	2.6			
2	1.8	4/4	CL	(0.0 to 4.8) Silty CLAY, dark brown to gray, moist, medium plasticity fines, abundant roots, firm.
4	2.3	2/4		
6	1.3	4/4		(4.8 to 13.1) Silty sandy CLAY, brown, wet, ~ 30% to 40% fine sand, ~ 60% to 70% medium plasticity fines, very soft.
8	2.7	4/4		
10	4.5			
12	4.7	4/4	CH	(13.1 to 14.7) Silty CLAY, brown, moist, high plasticity fines, soft, first confining clay.
14			SW	(14.7 to 16.0) Well-graded SAND, brown, wet, very fine to medium-grained sand with shell fragments.
16				
18				
20				
22				
24				
26				
28				
30				

PBW

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Comments:

A temporary piezometer (screened interval 3 - 13 ft.) was installed adjacent to this location.

The borehole was plugged with bentonite pellets.

This boring log should not be used separately from the original report.

PASTOR, BEHLING & WHEELER, LLC
 Consulting Engineers and Scientists

Log of Boring: SA4PZ07

Gulfco Marine Maintenance
 Superfund Site
 Freeport, TX

Completion Date:	07/20/06	Borehole Diameter (in.):	2
Drilling Company:	Best Drilling Services, Inc.	Total Depth (ft):	24
Field Supervisor:	Len Mason, P.G.	Northing:	13553911.84
Drilling Method:	Direct Push	Easting:	3154746.34
Sampling Method:	4 ft split spoon	Ground Elev. (ft. MSL):	5.4
		TOC Elev. (ft. MSL):	---

PBW Project No. 1352

Depth (ft)	PID (ppm-v)	Recovery (ft/ft)	USCS	Lithologic Description
0			SC	(0.0 to 1.5) Clayey SAND, brown with strong brown, plant material, loose, dry, trace gravel.
2	0.5	3/4	CL	(1.5 to 2.0) Silty CLAY, brown, reddish-brown, some black, slightly mottled, soft, medium plasticity, organic material at base.
4	0.6		SM/SC	(2.0 to 4.1) Clayey silty SAND; brown, grayish-brown, and reddish-brown, trace mottling, very fine-grained, subrounded, poorly sorted sand, unconsolidated, some root material, slightly moist, partially decayed plant material at 4.0.
6	0.6	3.5/4	CL	(4.1 to 8.0) CLAY, gray, soft to firm, medium plasticity; becomes mottled gray, greenish gray, and reddish brown at 5.4; becomes very moist at 5.4; saturated, silty sand lens (< 0.1 feet) at 5.4.
8	0.6		SC/SM	(8.0 to 9.6) Clayey, silty SAND, grayish-brown, some reddish-brown, very fine-grained, subrounded, poorly sorted sand, unconsolidated, saturated, sharp basal contact.
10	0.8	3.9/4		
12	0.7			
14	0.6	3.9/4		
16	0.6		CL	(9.6 to 24.0) Silty CLAY, reddish-brown with some light greenish gray, slightly mottled, soft, medium plasticity, moist; becoming more greenish-gray with some reddish brown and trace black at 10.5; becoming reddish-brown at 14.9; becoming greenish-gray with local areas of reddish-brown, very soft, very moist at 16.0; becoming dry and firm at 22.6.
18	0.5	4/4		
20	0.7			
22	0.7	3.9/4		
24	1.1			

PBW

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 Tel (512) 671-3434 Fax (512) 671-3446

Comments:

A temporary piezometer (screened interval 12 - 22 ft.) was installed adjacent to this location.

The borehole was plugged with bentonite pellets.

This boring log should not be used separately from the original report.

PASTOR, BEHLING & WHEELER, LLC
 Consulting Engineers and Scientists

Log of Boring: SD3PZ08

Gulfc0 Marine Maintenance
 Superfund Site
 Freeport, TX

Completion Date:	07/20/06	Borehole Diameter (in.):	2
Drilling Company:	Best Drilling Services, Inc.	Total Depth (ft):	28
Field Supervisor:	Len Mason, P.G.	Northing:	13554214.87
Drilling Method:	Direct Push	Easting:	3154926.63
Sampling Method:	4 ft split spoon	Ground Elev. (ft. MSL):	5.6
		TOC Elev. (ft. MSL):	---

PBW Project No. 1352

Depth (ft)	PID (ppm-v)	Recovery (ft/ft)	USCS	Lithologic Description
0			Fill	(0.0 to 0.5) GRAVEL with sand.
2	1.1	3.5/4	CL	(0.5 to 2.4) CLAY, brown, greenish-gray and black, slightly mottled, soft, medium plasticity, slightly moist.
4	1.2		SM	(2.4 to 4.6) Silty SAND, light brown, sand is fine-grained, subrounded, poorly sorted, mostly quartz, unconsolidated, slightly moist, becoming silty clay near base.
6	1.9	4/4		(4.6 to 8.7) CLAY, dark gray to dark greenish-gray, some reddish-brown, slightly mottled, soft, medium plasticity, slightly moist, trace root material.
8	2		CL	
10	1.6	4/4		(8.7 to 9.8) Sandy silty CLAY, grayish-brown, soft, low plasticity, moist, some sand stringers, very thin, sand is very fine-grained and subrounded. (9.8 to 11.5) CLAY, gray and strong brown, mottled, soft, medium plasticity, moist.
12	1.7		ML	(11.5 to 13.7) Clayey, sandy SILT, brown and brownish-gray, soft, unconsolidated, very moist to saturated, becoming saturated at 12.1.
14	1.6	3.5/4		(13.7 to 25.5) Slightly clayey, sandy SILT, brown, sand is very fine-grained, mostly quartz, unconsolidated, saturated, sand stringers throughout, slightly less saturated at 21.9.
16	1.5			
18	1.5	3.8/4		
20	1.2		ML/SC	
22	1.1	3.7/4		(25.5 to 28.0) CLAY, greenish-gray and brown, mottled, firm, medium to high plasticity, slightly moist.
24	1.6			
26	1.6	4/4	CL	
28	1.1			
30				

PBW

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 Round Rock, TX 78664
 Tel (512) 671-3434 Fax (512) 671-3446

Comments:

A temporary piezometer (screened interval 12 - 22 ft.) was installed adjacent to this location.

The borehole was plugged with bentonite pellets.

This boring log should not be used separately from the original report.

APPENDIX E
CPT PROFILES



CPT Data

Job Number 04.1908-0042

CPT Number NG3-CPT1

Location Gulfco Site-Freeport-TX

Operator ALBERT FONSECA

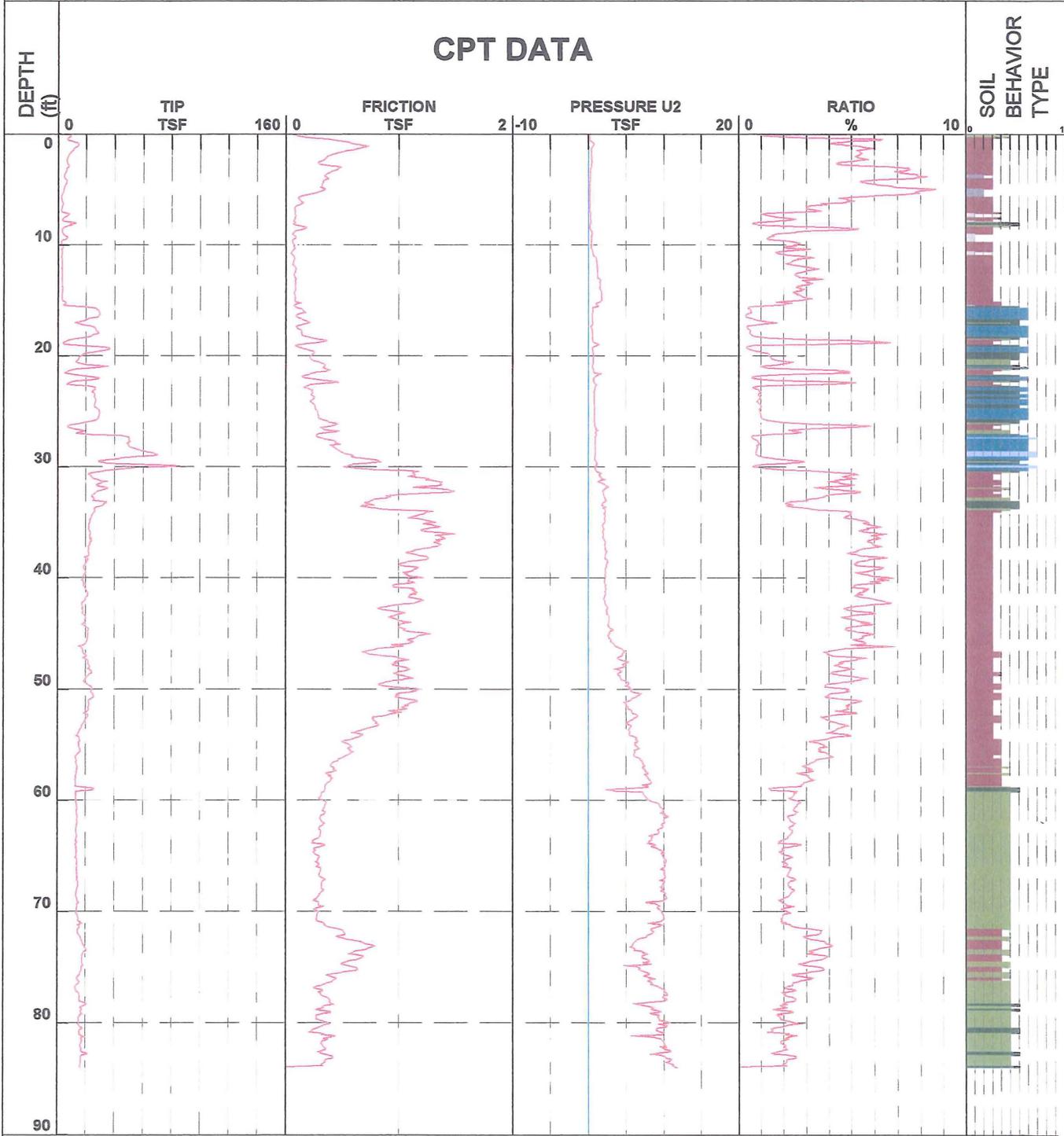
Date and T 03-Jun-2008 08:55:23

Cone Number A15F2.5CKEHW1636

Client _____

Elevation _____

Water Table 0.00 ft



- | | | | |
|----------------------------|-------------------------------|------------------------------|----------------------------------|
| 1 - sensitive fine grained | 4 - silty clay to clay | 7 - silty sand to sandy silt | 10 - gravelly sand to sand |
| 2 - organic material | 5 - clayey silt to silty clay | 8 - sand to silty sand | 11 - very stiff fine grained (*) |
| 3 - clay | 6 - sandy silt to clayey silt | 9 - sand | 12 - sand to clayey sand (*) |

Robertson et al. 1986 * Overconsolidated or Cemented



CPT Data

Job Number 04.1908-0042

CPT Number NC2-CPT3

Location Gulfco Site-Freeport-TX

Operator ALBERT FONSECA

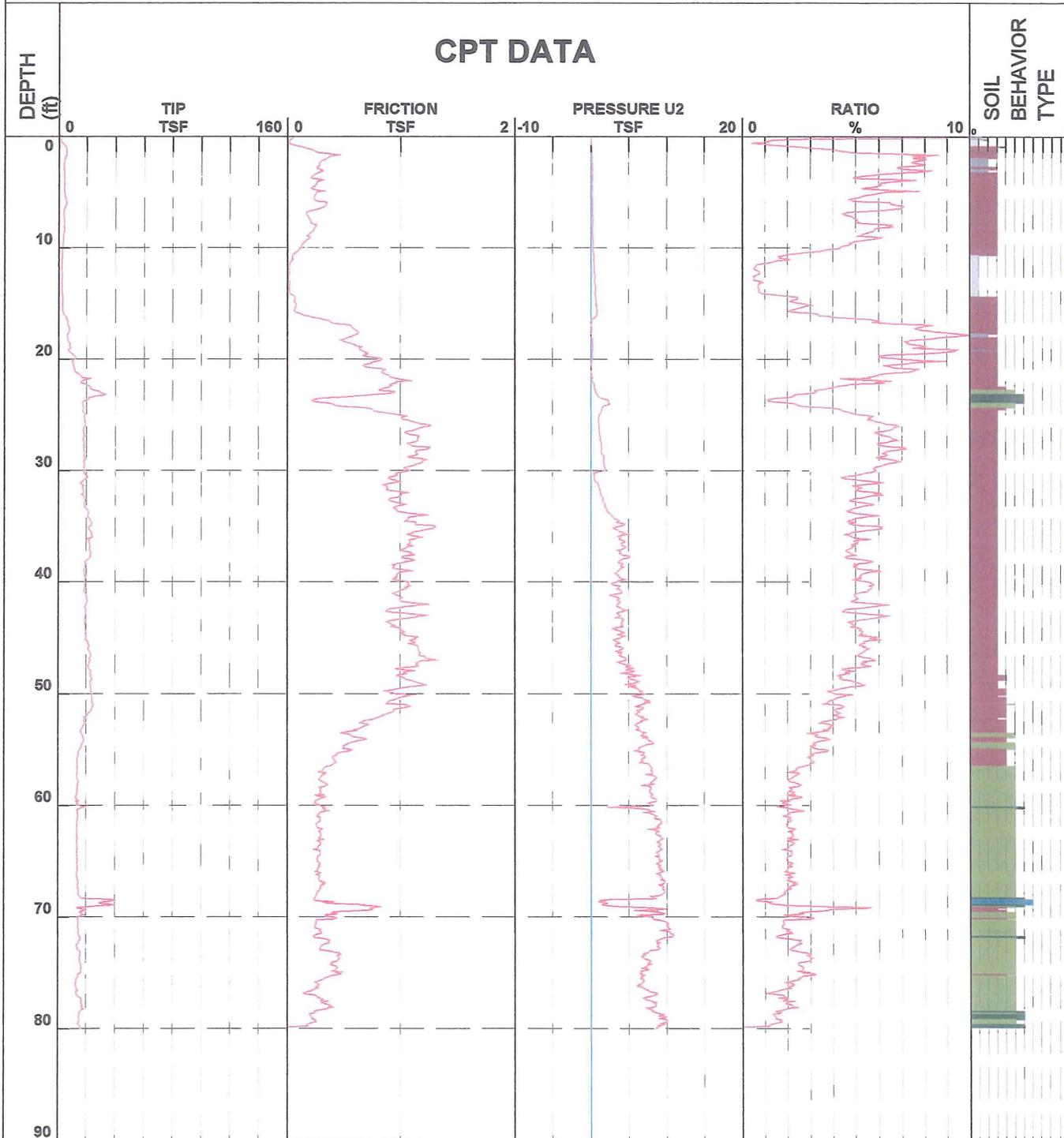
Date and T 02-Jun-2008 14:04:29

Cone Number A15F2.5CKEHW1636

Client _____

Elevation _____

Water Table 0.00 ft



- | | | | |
|----------------------------|-------------------------------|------------------------------|----------------------------------|
| 1 - sensitive fine grained | 4 - silty clay to clay | 7 - silty sand to sandy silt | 10 - gravelly sand to sand |
| 2 - organic material | 5 - clayey silt to silty clay | 8 - sand to silty sand | 11 - very stiff fine grained (*) |
| 3 - clay | 6 - sandy silt to clayey silt | 9 - sand | 12 - sand to clayey sand (*) |

Robertson et al. 1986 * Overconsolidated or Cemented



CPT Data

Job Number 04.1908-0042

CPT Number OCPT-4

Location Gulfc0 Site-Freeport-TX

Operator ALBERT FONSECA

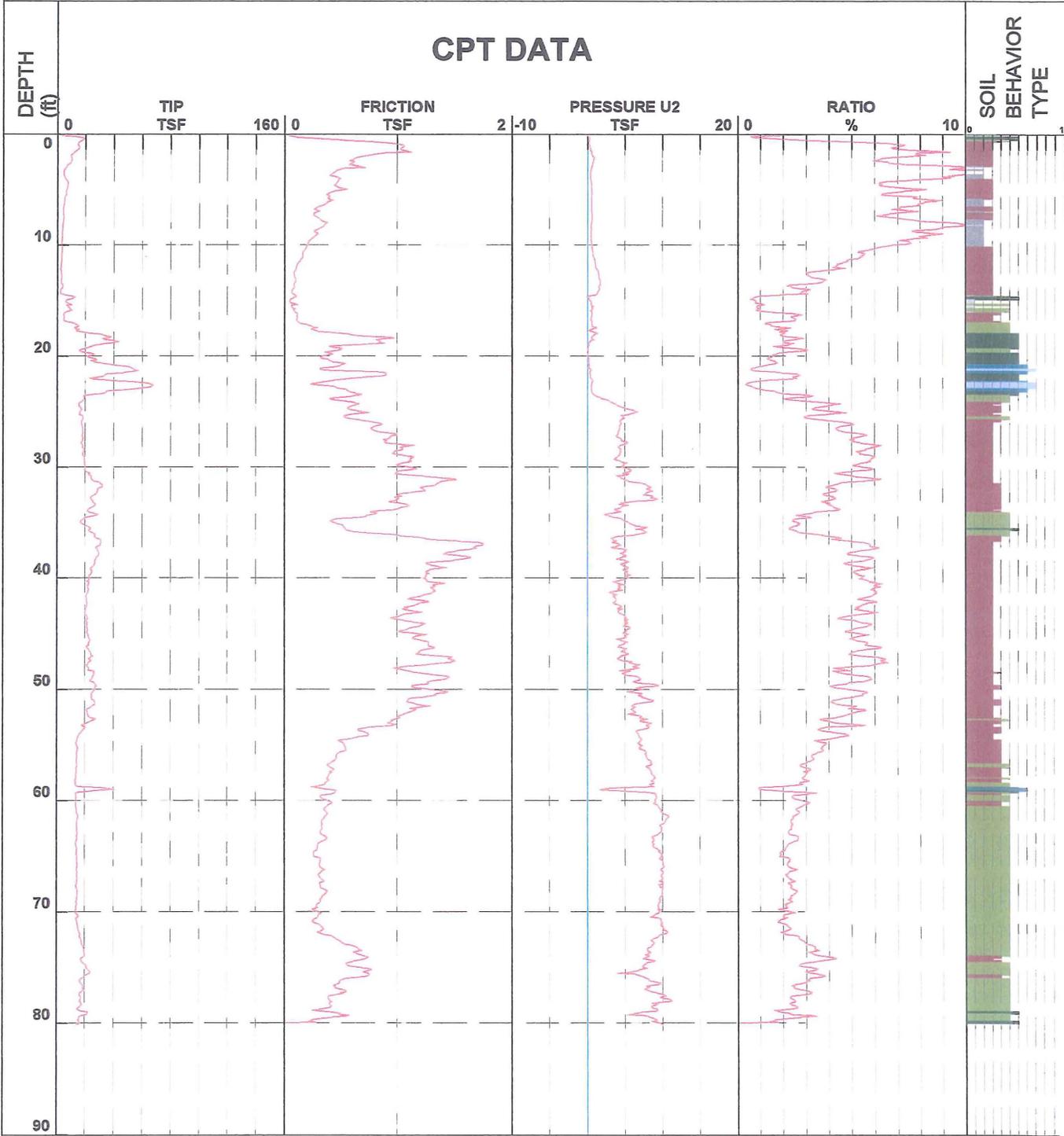
Date and T 03-Jun-2008 16:42:24

Cone Number A15F2.5CKEHW1636

Client _____

Elevation _____

Water Table 0.00 ft



- | | | | |
|----------------------------|-------------------------------|------------------------------|----------------------------------|
| 1 - sensitive fine grained | 4 - silty clay to clay | 7 - silty sand to sandy silt | 10 - gravelly sand to sand |
| 2 - organic material | 5 - clayey silt to silty clay | 8 - sand to silty sand | 11 - very stiff fine grained (*) |
| 3 - clay | 6 - sandy silt to clayey silt | 9 - sand | 12 - sand to clayey sand (*) |

Robertson et al. 1986 * Overconsolidated or Cemented



CPT Data

Job Number 04.1909-0001

CPT Number OCPT5

Location Gulfc0-Freeport-TX

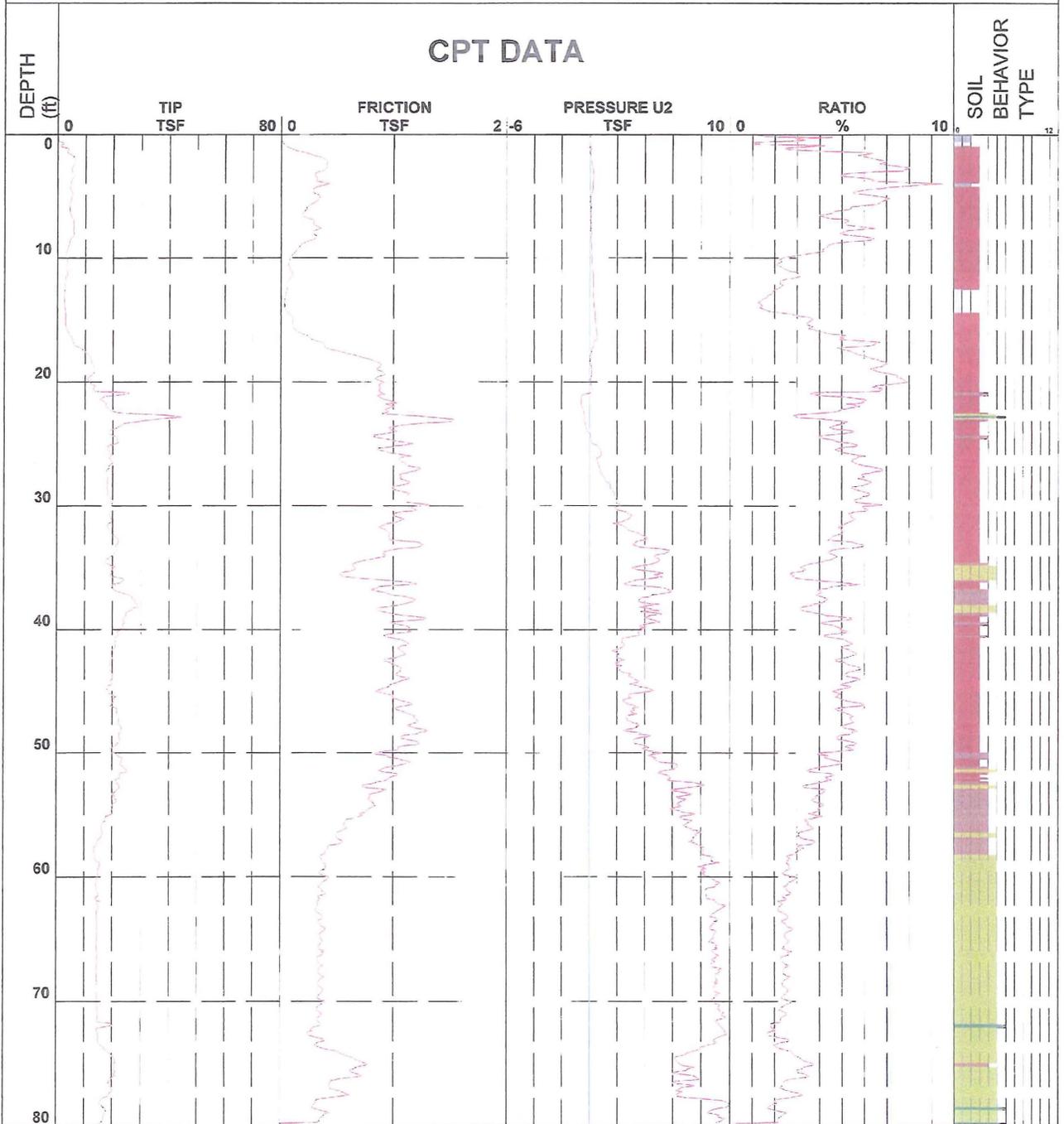
Operator Albert Fonseca

Date and Tin 07-Jan-2009 10:20:32

Cone Number F7.5CKEHW2/B0390

Client

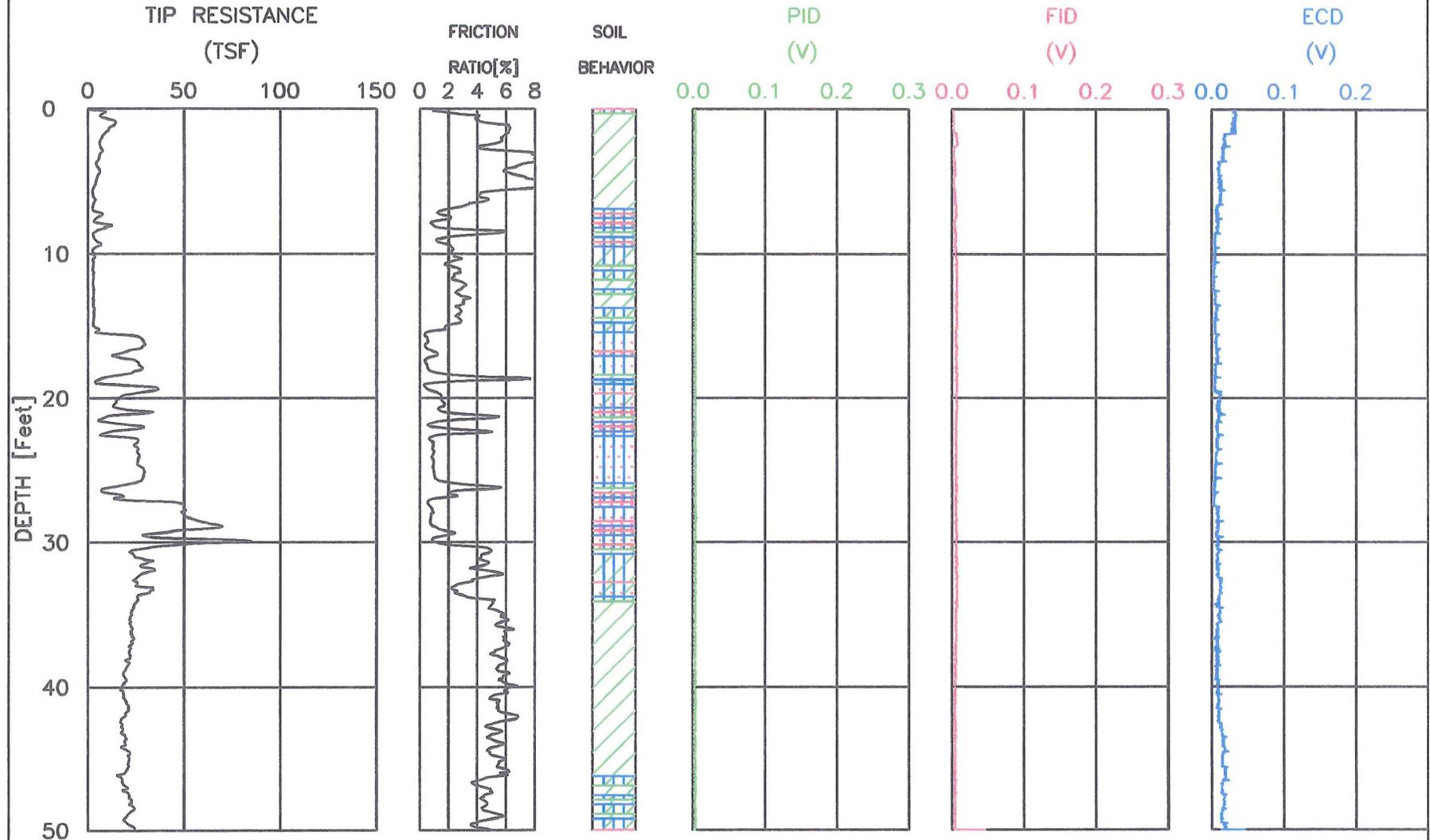
Pastor, Behling & Wheeler, LLC



- | | | | |
|----------------------------|-------------------------------|------------------------------|----------------------------------|
| 1 - sensitive fine grained | 4 - silty clay to clay | 7 - silty sand to sandy silt | 10 - gravelly sand to sand |
| 2 - organic material | 5 - clayey silt to silty clay | 8 - sand to silty sand | 11 - very stiff fine grained (*) |
| 3 - clay | 6 - sandy silt to clayey silt | 9 - sand | 12 - sand to clayey sand (*) |

Robertson et al. 1986 * Overconsolidated or Cemented

CPT/MIP TEST RESULTS



JOB NUMBER: 04.1908-0042

ELEVATION: 0.00

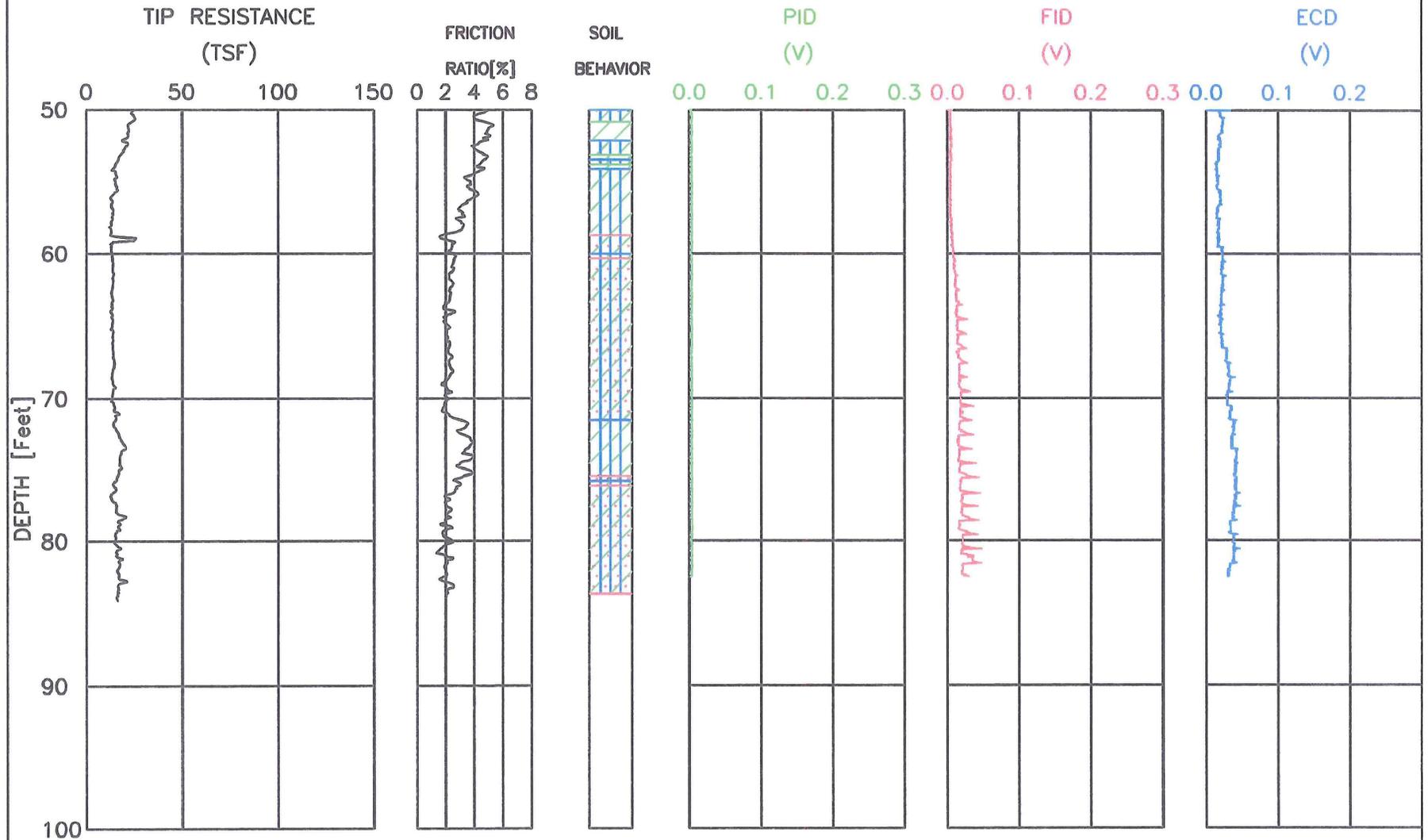
CPT NUMBER: NG3-CPT1

CONE NUMBER: A15F2.5CKEHW1636

DATE: 03-Jun-2008

PLATE: 1 OF 2

CPT/MIP TEST RESULTS



JOB NUMBER: 04.1908-0042

CPT NUMBER: NG3-CPT1

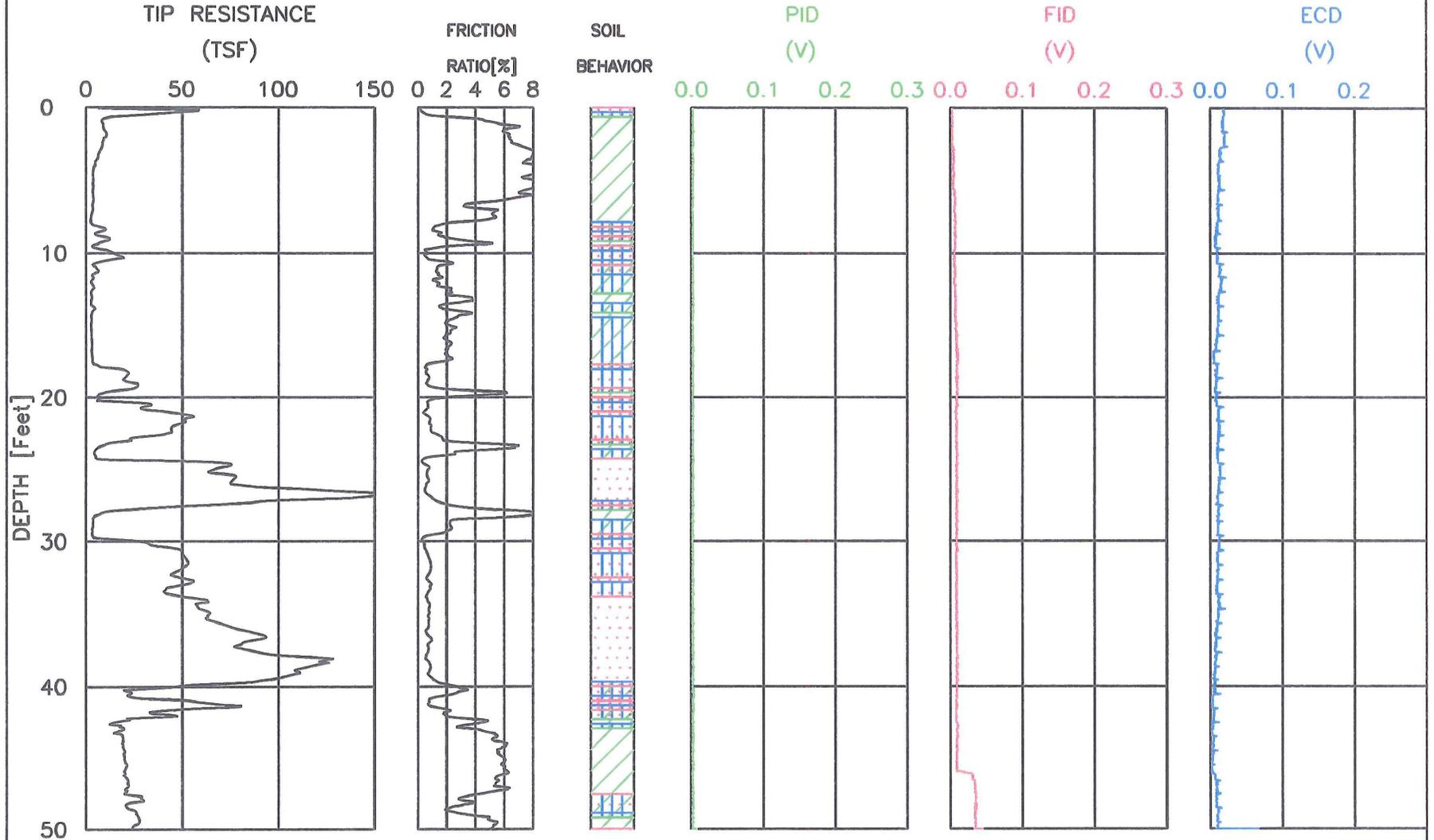
DATE: 03-Jun-2008

ELEVATION: 0.00

CONE NUMBER: A15F2.5CKEHW1636

PLATE: 2 OF 2

CPT/MIP TEST RESULTS



JOB NUMBER: 04.1908-0042

CPT NUMBER: NE4-CPT2

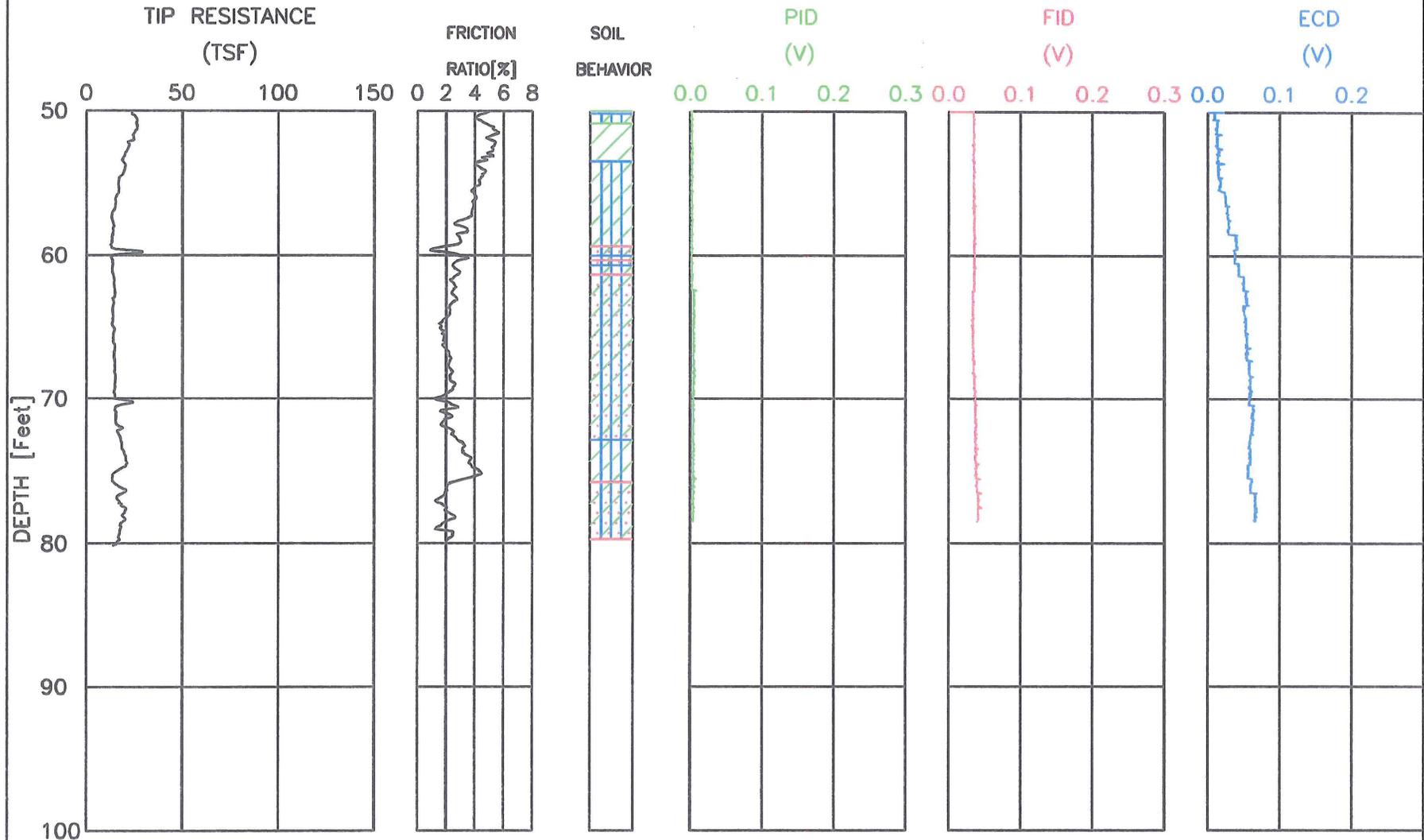
DATE: 04-Jun-2008

ELEVATION: 0.00

CONE NUMBER: A15F2.5CKEHW1636

PLATE: 1 OF 2

CPT/MIP TEST RESULTS



JOB NUMBER: 04.1908-0042

ELEVATION: 0.00

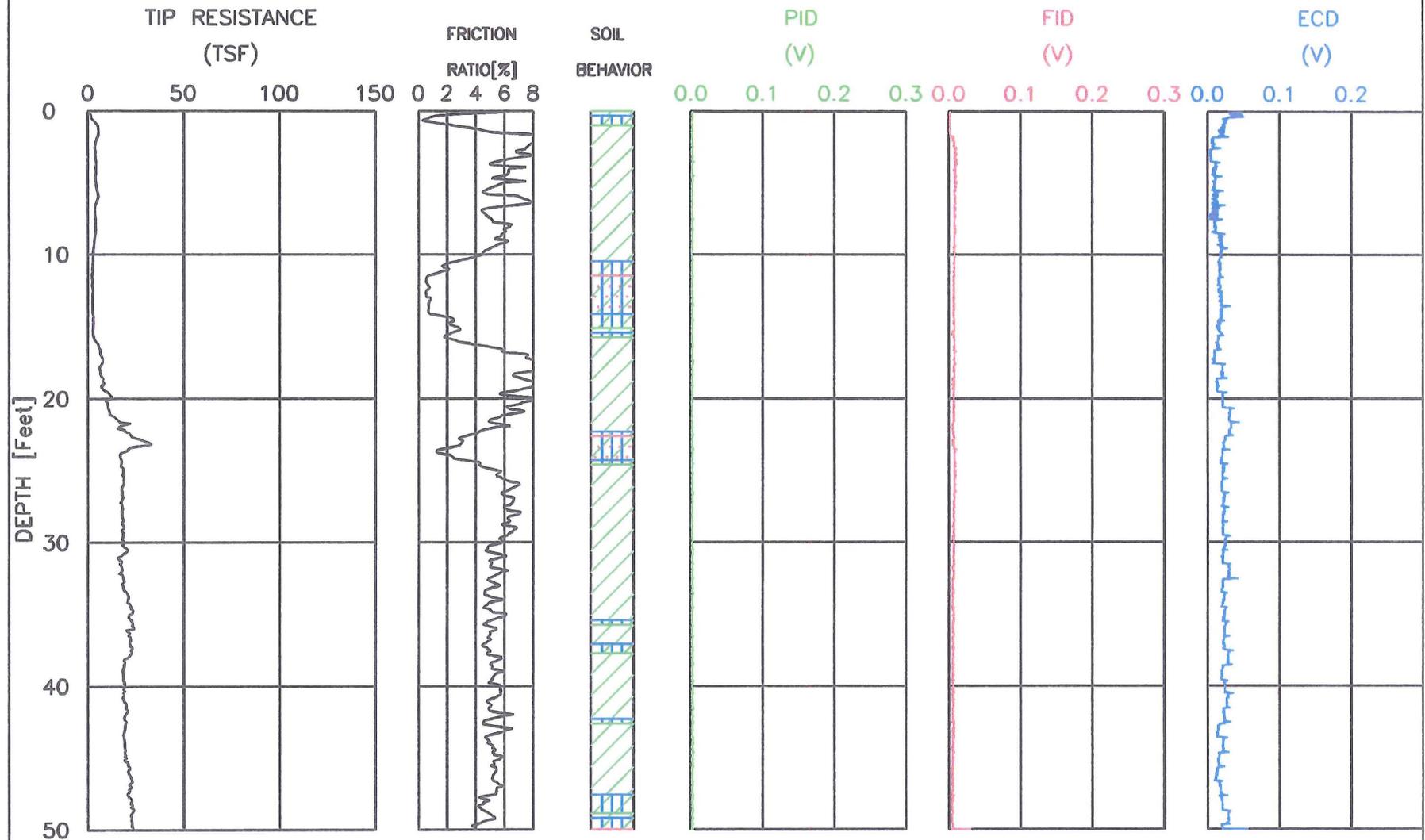
CPT NUMBER: NE4-CPT2

CONE NUMBER: A15F2.5CKEHW1636

DATE: 04-Jun-2008

PLATE: 2 OF 2

CPT/MIP TEST RESULTS



JOB NUMBER: 04.1908-0042

ELEVATION: 0.00

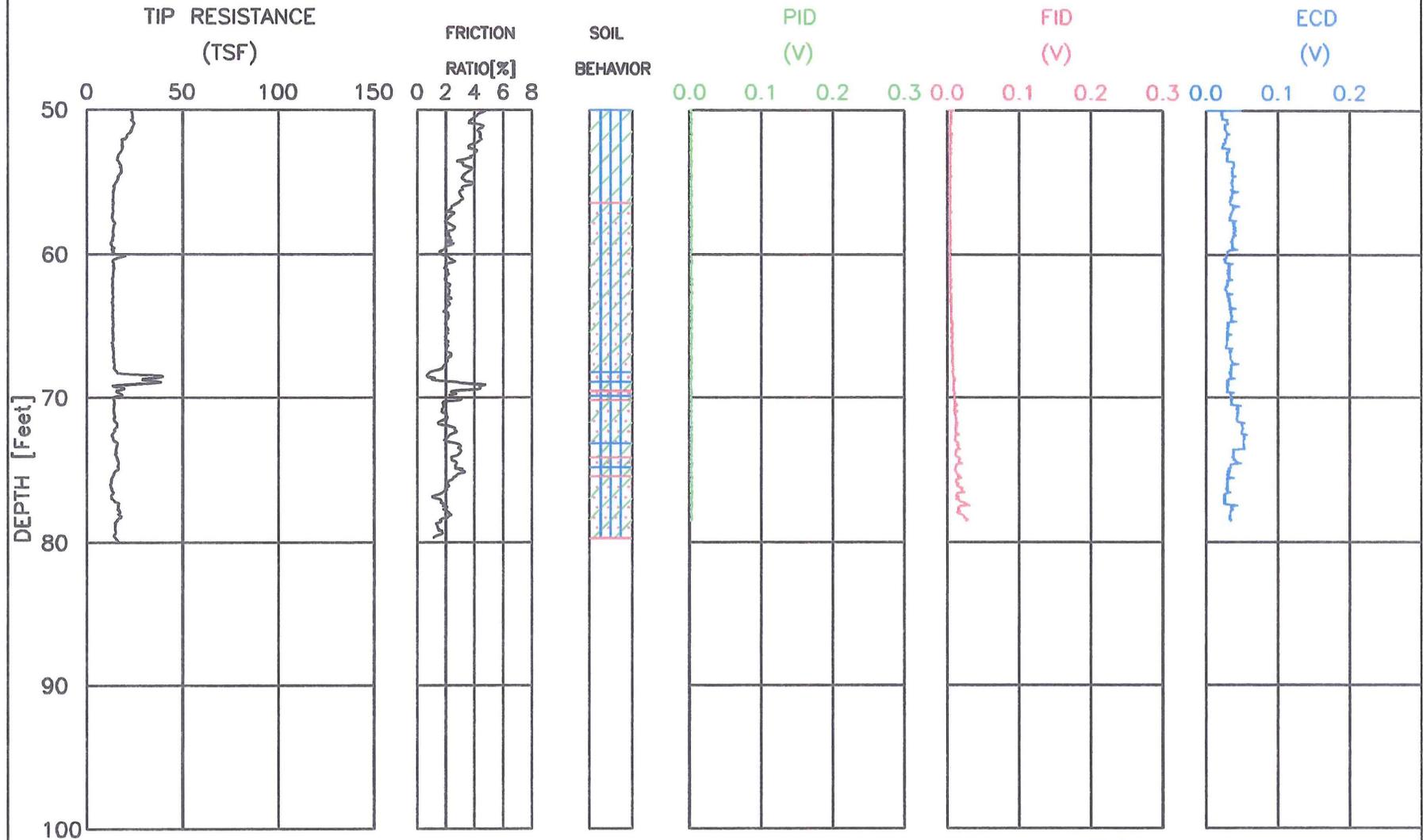
CPT NUMBER: NC2-CPT3

CONE NUMBER: A15F2.5CKEHW1636

DATE: 02-Jun-2008

PLATE: 1 OF 2

CPT/MIP TEST RESULTS



JOB NUMBER: 04.1908-0042

ELEVATION: 0.00

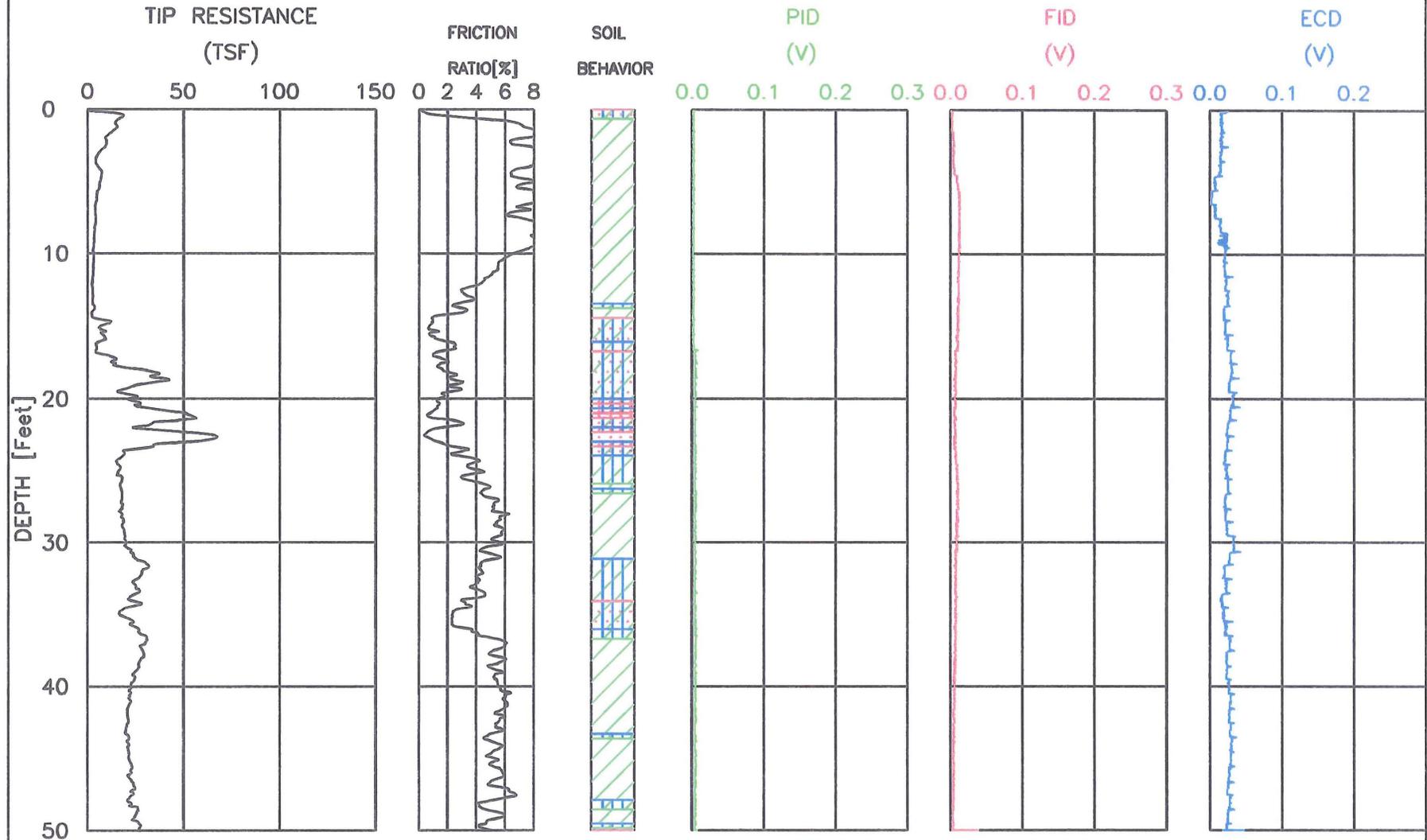
CPT NUMBER: NC2-CPT3

CONE NUMBER: A15F2.5CKEHW1636

DATE: 02-Jun-2008

PLATE: 2 OF 2

CPT/MIP TEST RESULTS



JOB NUMBER: 04.1908-0042

ELEVATION: 0.00

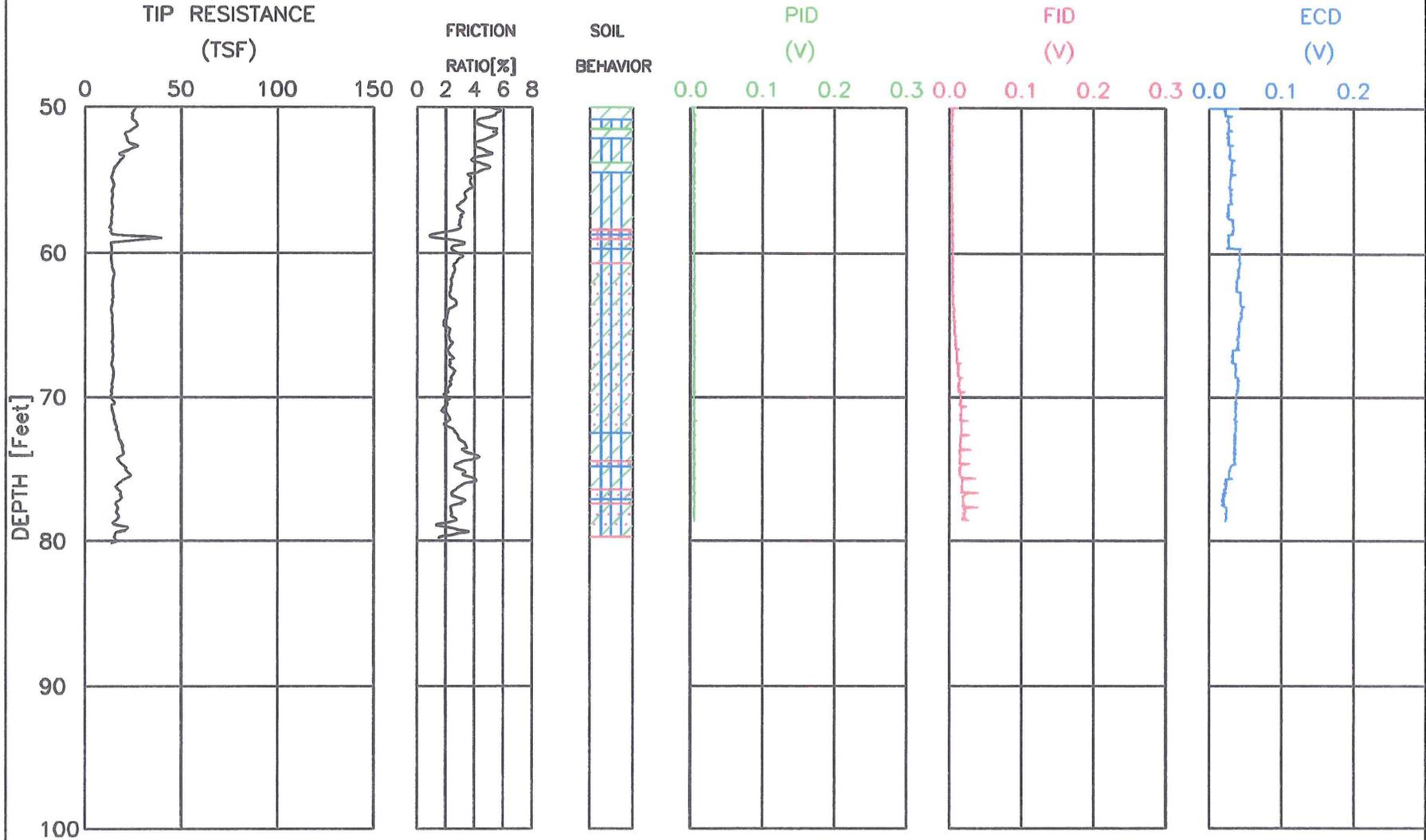
CPT NUMBER: OCPT-4

CONE NUMBER: A15F2.5CKEHW1636

DATE: 03-Jun-2008

PLATE: 1 OF 2

CPT/MIP TEST RESULTS



JOB NUMBER: 04.1908-0042

ELEVATION: 0.00

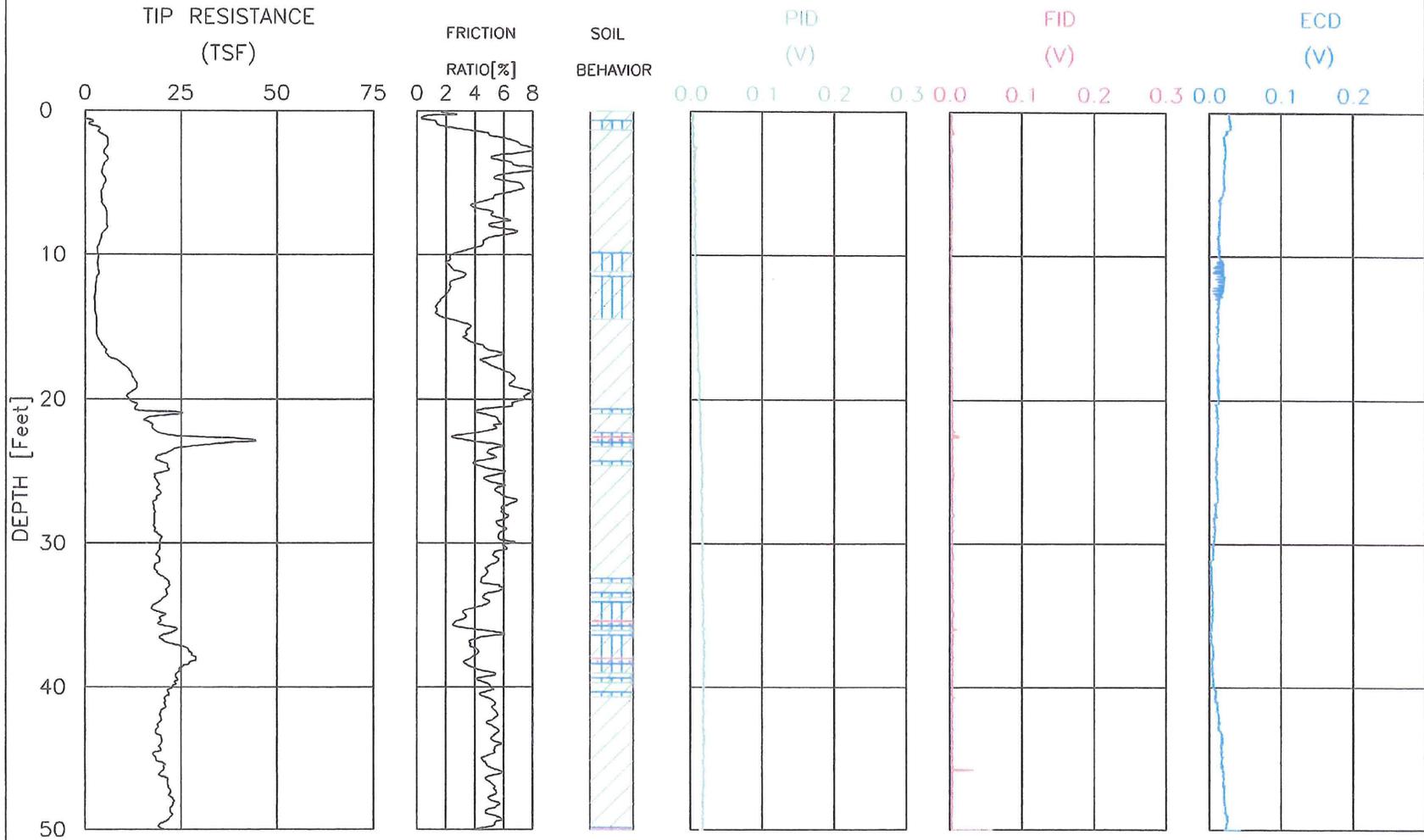
CPT NUMBER: OCPT-4

CONE NUMBER: A15F2.5CKEHW1636

DATE: 03-Jun-2008

PLATE: 2 OF 2

CPT/MIP TEST RESULTS



JOB NUMBER: 04.1909-0001

ELEVATION: 0.00

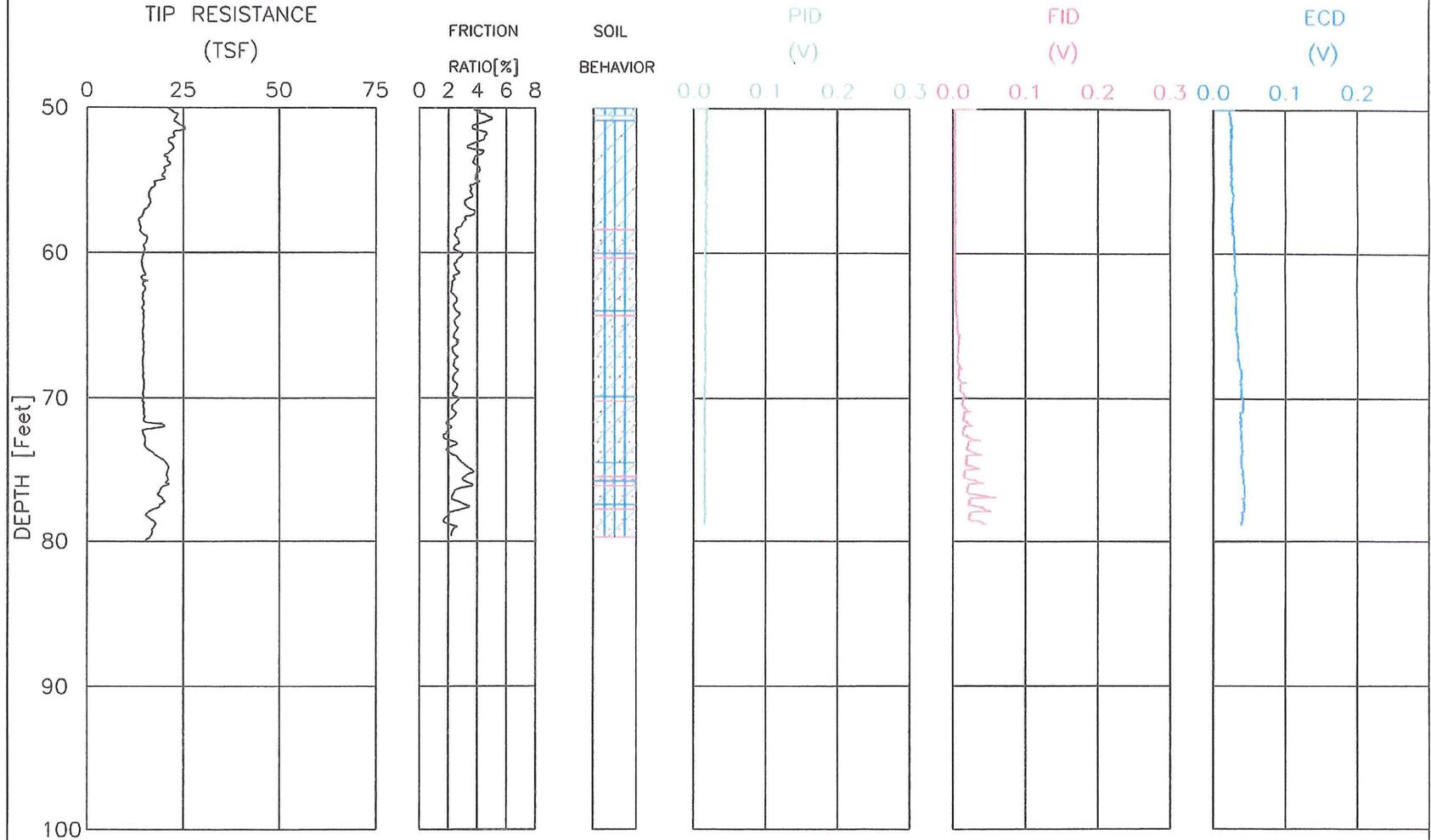
CPT NUMBER: OCPT5

CONE NUMBER: F7.5CKEHW2/B0390

DATE: 07-Jan-2009

PLATE: 1 OF 2

CPT/MIP TEST RESULTS



JOB NUMBER: 04.1909-0001

CPT NUMBER: OCPT5

DATE: 07-Jan-2009

ELEVATION: 0.00

CONE NUMBER: F7.5CKEHW2/B0390

PLATE: 2 OF 2